Smithsonian Institution [illegible], [illegible]
18 to 23 February, 1967

INTRODUCTION

The grid was surveyed this month by Pacific Program [illegible] Robert DeLong (Biologist-in-Charge), Ralph W. Schreiber, and [illegible] Fitch. The grid track was changed (see Figure 1) due to insufficient time and logistical problems encountered during the survey. LT 2087 (Light Tug) accompanied the USS George Eastman during portion of the survey, but heavy seas forced it to put into Johnston Island on 20 February. Excellent cooperation was received from officers and crew of both vessels.

[illegible] observations for 62 hours, traversing 595 miles, recorded for 393 birds of 13 species. During 56.2 hours of nocturnal observation 312 birds of 5 species were recorded.

The species present and their spacial distribution in the grid suggest high dependancy on Johnston Atoll. The North and East Quadrants (those closest to Johnston Atoll) contained 85% of [illegible] diurnal grid observations.

SPECIES ACCOUNTS

Diomedea nigripes (Black-footed Albatross) 1

One bird was seen on 19 February in the south quadrant of the grid. This bird stayed with the ship for only a few minutes.

Albatross began following the ship just two miles outside Pearl Harbor, surprisingly close to land. This may have been caused by the high winds in the offshore Oahu waters at that time. [illegible] the non-grid sightings (82%) were within 200 miles of Oahu.

Pterodroma externa externa (Juan Fernandez Petrel) 1
P. e. cervicalis (White-necked Petrel) 1

One bird of each race was seen. The Juan Fernandez race was seen in the north quadrant and the White-necked race was seen in the eastern quadrant. None was seen outside the grid.

Pterodroma rostrata/alba (Tahiti/Phoenix Island Petrel) 6

The six seen were evenly distributed throughout the grid. Four birds were seen while enroute to the grid.

Pterodroma hypoleuca 2

Two birds of this species were seen on 19 February in the south quadrant. They were not identified to race.

Oceanodroma leucorhoa (Leach's Storm Petrel) 6

Six white-rumped storm petrels were recorded. All were probably of this species. They were found in each quadrant of the grid.

Puffinus nativitatus (Christmas Island Shearwater) 1

One bird was seen on 22 February in the West quadrant.

Sula leucogaster (Brown Booby) 3

Three were seen in the north quadrant.

Sula dactylatra (Blue-faced Booby) 4

The four Blue-faced Boobies recorded were sub-adult birds. One was collected.

Sula sula (Red-footed Booby) 41

Forty-one Red foots were recorded. Six were adults, 12 subadults, and 23 immatures. Again this month the immatures are the most abundant age class.

The abundance of Red-foots apparently can be correlated with high winds. During periods of high winds fewer boobies return

to Johnston Island to roost (see recent bi-weeklies from Johnston Atoll). They probably "find it easier to remain" on the wing when it is windy, and are able to stay aloft at night with less expenditure of energy than during calm weather. During the grid survey there were markedly lower roosting populations on JI. Data on the effects of wind on the JI bird populations are being analyzed elsewhere.

One Red-foot was collected.

Phaethon rubricauda Red-tailed Tropicbird 3

All three birds were seen on 21 February in the West Quadrant.

Phaethon lepturus White-tailed Tropicbird 9

Birds were seen in each quadrant but two-thirds were sighted on the eastern side of the grid on 18 and 19 February.

One bird was collected.

Fregata minor Great Frigatebird 15

The fifteen frigates were seen throughout the grid, but were concentrated in the North and East quadrants. Wind probably has a similar influence on the frigates as it has on the Red-footed Booby.

Sterna fuscata Sooty Tern 291

During diurnal observations all 291 Sooties were seen in the North and East quadrants. Ninety-nine percent of the Sooty observations were birds in flocks. All observations were close to Johnston Island where the birds were beginning to nest. They apparently were not going far from the island to feed.

Nocturnal observations accounted for 281 Sooties. All but four of these birds were recorded in the North quadrant on the night of 20-21 February when we re-entered the grid after leaving JI.

DISCUSSION

The survey data suggest two interesting hypotheses: 1) Sooty Terns were not ranging far south of JI to feed. This may be due to breeding activity on the island, but also may be influenced by the strong north easterly winds. Birds flying any distance south to feed would have to " battle" these winds getting back to the island at night. 2) Strong winds may cause Red-footed Boobies and Great Frigatebirds to move away from the island and to remain in the air rather than land as during calm weather.

Heavy north easterly trade winds ranging from 20 to 35 [illegible] made observations difficult. Seas resulting from heavy winds reduced the effective radius of visibility and birds flying behind swells and waves would have been easily missed.

The analysis of the February data by quadrants can be misleading. Miles travelled in the quadrants varied from 113 to 188 miles. Because of this large variation in sample size, the parameter birds per linear mile is not comparative from quadrant to quadrant. Also, due to the low population of birds in the grid, the presence of a feeding flock in one quadrant throws total birds per linear mile for that quadrant out of proportion.

Tugs

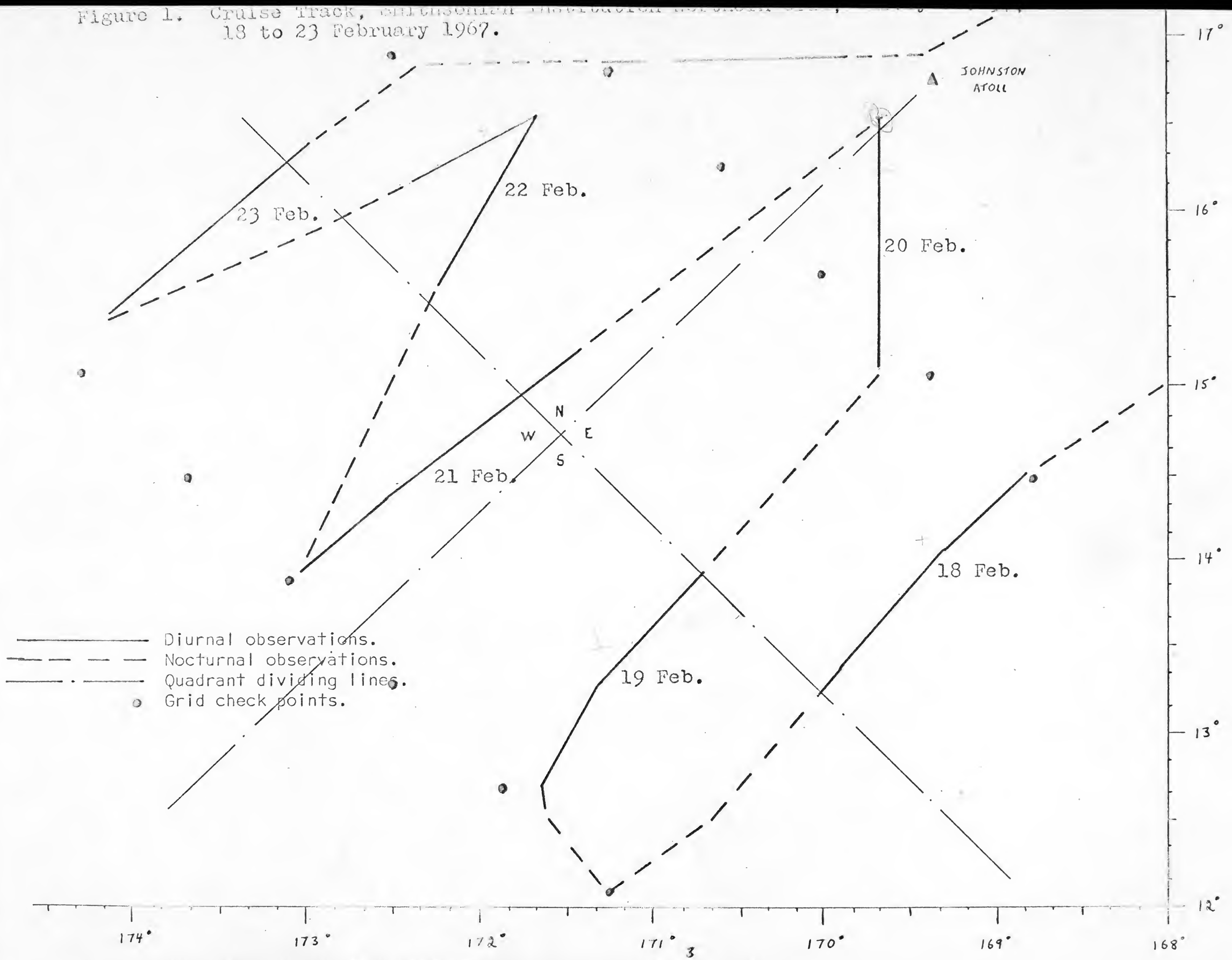
Observations were made from the LT* for two days. The first day while running with the seas this proved satisfactory. On the second day both ships were headed into building seas. Heading into the seas the LT was not at all stable. Its narrow beam causes it to plunge badly. Pitch and roll are very fast and make observing with glasses impossible. When higher seas are encountered the tug is taking so much spray and green water that all exposed decks are secured. It is argued by the tug crew that they can sail them in any weather, but keeping them afloat and being acceptable for biological observations are distinctly different. In seas below eight feet (including swell) the tug is satisfactory. In seas heavier than ten feet it is not possible to observe them.

Data from eight hours of dual diurnal observation on the YAG and LT indicate that given good sea conditions the observer on the LT sees at least as many birds as can be seen from the larger ship. These data also indicate that more birds may be seen from the smaller ship. There are two plausible explanations for this: First, the birds may avoid the larger ship as it presents a massive profile on the horizon. Secondly, the observer on the tug is closer to the water affording a better angle for observing low-flying birds. The lower angle presents a greater area of contrasting horizon (sea and sky) on which to spot birds.

In good sea conditions the LT seems particularly effective in approaching feeding bird flocks. This is never accomplished with the YAG, apparently due to its large size. The tug's greater maneuverability allows efficient pickup of downed birds. All collected birds were retrieved within five minutes.

*light tug.

Figure 1. Cruise Track, Smithsonian Tuamotuan Expedition, 18 to 23 February 1967.



SMITHSONIAN INSTITUTION NORTHERN GRID, FEBRUARY 18-23, 1967.

TABLE 1. SUMMARY OF DIURNAL OBSERVATIONS IN SMITHSONIAN NORTHERN GRID, FEBRUARY, 1967.

DATE	NUMBER OF BIRDS	SIGHTINGS	SPECIES	FLOCKS	MILES	HOURS	BIRDS/LINEAR MILE
18	216	25	7	4	113	11.8	1.91
19	28	23	8	-	99	11.7	0.28
20	2	2	2	-	25	3.3	0.08
21	12	12	7	-	129	11.8	0.09
22	127	20	9	2	134	11.7	0.95
23	8	7	3	-	95	11.7	0.08
TOTAL	393	89	13	6	595	62.0	

TABLE 2. DIURNAL DENSITY OF SPECIES GROUPS IN GRID, FEBRUARY, 1967.

SPECIES GROUP	# OF BIRDS	#/LINEAR MILE	#/MILE^2	EST. POP./ 50,000 SQ. MI.	% OF TOTAL BIRDS
Shear/Pet.	15	0.025	0.012	600	3.8
Storm Pet.	6	0.010	0.010	500	1.6
Boobies	48	0.081	0.040	2000	12.2
Tropicbirds	13	0.022	0.011	550	3.3
Frigatebirds	15	0.025	0.006	300	3.8
Terns	291	0.289	0.163	8150	74.0
Misc.	5	0.009	0.005	250	1.3
TOTAL	393	0.661	0.247	12,350	100.0

TABLE 3. SUMMARY OF NOCTURNAL GRID OBSERVATIONS, FEBRUARY, 1967

DATE	# OF MILES	# OF HOURS	# OF BIRDS	# OF SOOTY TERNS	# OF SPECIES
18-19	132	12.3	8	3	5
19-20	90	8.2	5	4	1
20-21	131	7.6	298	277	2
21-22	103	12.1	-	-	-
22-23	124	12.2	1	-	1
23	33	3.8	-	-	-
TOTAL	613	56.2	312	284	5

TABLE 4. DIURNAL ABUNDANCE BY GRID QUADRANTS, FEBRUARY, 1967.

	TOTAL BIRDS OBSERVED IN GRID	% IN FLOCKS	BIRDS/LINEAR MILE	EAST QUADRANT # OF BIRDS	EAST QUADRANT #/LIN. MILE	SOUTH QUADRANT # OF BIRDS	SOUTH QUADRANT #/LIN. MILE	WEST QUADRANT # OF BIRDS	WEST QUADRANT #/LIN. MILE	NORTH QUADRANT # OF BIRDS	NORTH QUADRANT #/LIN. MILE
Black-footed Albatross	1		.002			1	.008				
Christmas Island Shearwater	1		.002							1	.006
Phoenix/Tahitian Petrel	6	33	.010	1	.008	3	.026			2	.012
Juan Fernandez Petrel	1		.002							1	.006
Pterodroma sp.	3		.005	2	.016					1	.006
P. hypoleuca	2		.004			2	.017				
White-necked Petrel	1		.002	1	.008						
White-rumped Storm Petrel	6		.010	1	.008	1	.008	1	.005	3	.018
PROCELLARIIFORMES	21	10	.037								
Brown Booby	3		.005					1	.005	2	.012
Red-footed Booby	41	10	.069	9	.072	13	.115	2	.010	17	.100
Blue-faced Booby	4		.006	1	.008	1	.008			2	.012
White-tailed Tropicbird	9		.015	2	016	5	.044	1	.005	1	.006
Red-tailed Tropicbird	3		.005					1	.005	2	.012
Great Frigatebird	15	07	.025	5	.040	3	.026	5	.026	2	.006
TROPICBIRD SP.	1		.002							1	.006
PELICANIFORMES	76	07	.127								
Sooty Tern	291	99	.491	191	1.540					100	.589
CHARADRIIFORMES	291	99	.491								
Bird species	5		.010	1	.008	3	.026			1	.006
TOTAL			0.662		1.724		0.278		0.056		0.791
MILES				124		113		188		170	

NON-GRID OBSERVATIONS

Black-footed Albatross were recorded on 15 February just two miles outside Pearl Harbor. The following day there was but one bird, and on the third day none was seen. A similiar pattern held on the return trip.

Shearwater and gadfly petrel observations were limited to one Christmas Island Shearwater and four Tahiti/Phoenix Island Petrels. There was a notable lack of Wedge-tailed Shearwaters, Juan Fernandez Petrels, and small Pterodroma. Many of the Pterodroma are in the five degree north latitude waters at this time, but where are all the Wedgetails from the Hawaiian Islands?

Sooty and Gray-backed Terns were not evenly distributed in the waters between Oahu and the grid. Greatest numbers were seen close to the Hawaiian Islands, and around Johnston Island. Few terns were seen in the waters approximately midway between the island groups. This probably is a reflection of the breeding activity that is now beginning.

No Noddy Terns were seen in or outside the grid.

OBSERVATIONS OF BIRDS KNOWN TO BE PRESENT IN NUMBERS ON JOHNSTON ATOLL WHILE THE EASTMAN WAS WITHIN SIGHT OF THE ATOLL:

While approaching JI from directly south during the afternoon of 20 February, no unusual numbers of birds were observed until approximately a half-an-hour before sunset when the ship hove to 15 miles south-west of the atoll. During the next hour over 150 Red-footed Boobies were counted flying toward the atoll. At sunset a tight flock of 25 birds was sighted but throughout this period and until dark a constant stream of birds passed the ship and it was difficult to differentiate flocks. Pairs and small groups of

three or four birds were common. The boobies sighted flew close to the water (none was seen above 30 to 40 feet) and all were flying "purposefully" toward the atoll. This was the major distinct directional movement observed during this cruise.

One serum sample was collected from a subadult Red-footed Booby which flew aboard the vessel. No specimens were collected outside the grid.

SUMMARY OF DIURNAL NON-GRID OBSERVATIONS, FEBRUARY, 1967.

DATE	15	16	17	20	24	25	26	27	28	
Black-footed Albatross	4	1	-	-	-	1	6	16	17	
Laysan Albatross	-	-	-	-	-	-	-	2	1	
Christmas Island Shearwater	-	-	-	1	-	-	-	-	-	
Phoenix/Tahitian Isl. Petrel	-	2	2	-	-	-	-	-	-	
White-rumped Storm Petrel	3	-	-	2	-	1	1	-	2	
Shearwater/Petrel	1	5	-	-	-	-	1	2	-	
Brown Booby	1	-	-	-	-	-	1	-	-	
Blue-faced Booby	-	-	-	1	2	-	-	1	-	
Red-footed Booby	3	10	5	54	27	2	4	3	15	
White-tailed Tropicbird	-	3	1	-	-	-	-	-	2	
Red-tailed Tropicbird	1	-	-	1	-	-	-	-	1	
Tropicbird sp.	1	1	-	1	-	-	-	-	-	
Great Frigatebird	-	3	-	1	13	-	1	2	-	
Pomarine Jaeger	16	-	-	-	-	-	-	-	10	
Sooty Tern	116	121	96	215	180	-	37	16	178	
Gray-backed Tern	9	-	-	-	-	-	-	-	18	
Fairy Tern	6	3	-	3	6	-	-	6	4	
Sterna sp.	160	-	-	-	-	-	-	-	-	
Phalarope sp.	-	-	-	-	1	-	-	-	-	
										Totals:
Hours of observation	9.6	11.6	11.7	8.2	11.6	11.6	11.6	11.7	10.0	97.6
Miles of observation	100	110	128	77	81	96	110	80	71	853

The data that was taken from the tug during periods of duplicate observation has not been entered into the ADP system. Some of these LT data are entirely duplication, however some are sightings of separate birds. I do not think they should be entered, but leave the possibility open to you.

The positions on the green ~~mmm~~ sighting cards should all be checked and completed for 24 to 28 February. The checking is necessary as a spot check turned-up errors.

R.L. DeLong

1967 NB

Date 15 FEB 1967 Ship USS LEARY (DDG) DLG 16 Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time 0702 Position: Lat. PEARL HARBOR, Long. _____

Sunset: Time 1837 Position: Lat. 20-25N, Long. 154-25W

Miles travelled from 0000 hours to sunrise = N.A

Miles travelled from ~~sunrise~~ u/w to sunset = 100

Miles travelled from sunset to 2400 hours = 63 MILES

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.				
2.				
3.	1200 W	LORAN	20-56N	158-27W
4.	2000 W	CELESTIAL	20-19N	159-37W
5.				

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
0100						
0200						
0300						
0400						
0500						
0600						
0700						
0800	21 14	158 02				
0900	21-11	31-05				
1000	21-07.5N	158-08W				
1100	21.02.8 N	158-17.5				
1200	20 56N	158-27W				
1300	20-50N	158-36W				
1400	20 46N	158-45W				
1500	20-41.5N	158-54W				
1600	20-37N	159-03W				
1700	20-32.5N	159-11.7				
1800	20 28N	159-20.5W				
1900	20-23.5N	159-29.2W				
2000	20-19N	159-37W				
2100	20-13N	159-47W				
2200	20.07N	159-57W				
2300	20-01.3N	159-07.5				
2400	19-55.5N	160-18W				

Date 16 FEB 1967 Ship USS LEARLE CASTER (YAG 37) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time 0714 Position: Lat. 19-13N, Long. 161-31W

Sunset: Time 1853 Position: Lat. 18-08N, Long. 163-04W

Miles travelled from 0000 hours to sunrise = 82

Miles travelled from sunrise to sunset = 110

Miles travelled from sunset to 2400 hours = 53.5

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.	0000 W	DR	19-55N	160-18 W
2.	0800 W	CELESTIAL	19-09N	161-38 W
3.	1200 W	CELESTIAL	18-46.5N	162-00W
4.	2000 W	CELESTIAL	18-01 N	163-14W
5.				

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
0100						
0200	19-44N	160 38 W				
0300						
0400	19-32N	160-58 W				
0500						
0600	19-20N	161-18.5W				
0700	19-15N	161-28W				
0800	19-09N	161 38 W				
0900	19-03N	161-44W				
1000	18-57N	161-50 W				
1100	18-51N	161-55W				
1200	18-46.5N	162-00 W				
1300	18-41 N	162-09W				
1400	18-35N	162-18 W				
1500	18-30N	162-27W				
1600	18-24N	162-37W				
1700	18	162-46				
1800	18-12N	162-55W				
1900	06	163-09				
2000	18-01N	163-14W				
2100						
2200	17-51N	163 33W				
2300						
2400	17-40N	163-52W				

Date 17 FEB 1967 Ship GEORGE EASTMAN (YAG 39) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time 0726 Position: Lat. 17-02 N, Long. 165-02 W

Sunset: Time 1810 X Position: Lat. 15-42 N, Long. 166-45.5 W

Miles travelled from 0000 hours to sunrise = 78

Miles travelled from sunrise to sunset = 128

Miles travelled from sunset to 2400 hours = 64

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.	0000 W	DR.	17-40 N	163-52 W
2.	0800 W	CELESTIAL	16-58 N	165-08 W
3.	1200 W	CELESTIAL	16-32 N	165-43.5 W
4.	2000 X	CELESTIAL	15-29 N	167-03 W
5.				

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
0100						
0200	17-30 N	164-11 W				
0300						
0400	17-19 N	164-30 W				
0500						
0600	17-09 N	164-49 W				
0700						
0800	16 58 N	165 03 W				
0900	52	16				
1000	16-45 N	165-25 W				
1100	39	34				
1200	16-32 N	165-43.5 W				
1300	25	51				
1400	16-18 N	166 01 W				
1500						
1600	16-04 N	166-18 W				
1700	15-57	27				
1800	15-50 N	166-36 W				
1900	15-43	45				
1900 ~~2000~~	15-36 N	166-54 W				
2000 ~~2100~~	15-29 N	167-03 W				
2100 ~~2200~~						
2200 ~~2300~~	15-18 N	167-21 W				
2300 ~~2400~~	~~15-08 N~~					
2400	15-08 N	167-39 W				

RETARD 2 CLOCKS 1 HR.

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Date 18 FEB 1967 Ship GEORGE EASTMAN (YAG 39) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time 0637 Position: Lat. 14-33N, Long. 168-41 W

Sunset: Time 1827 Position: Lat. 13-10N, Long. 170-03 W

Miles travelled from 0000 hours to sunrise = 69

Miles travelled from sunrise to sunset = 124

Miles travelled from sunset to 2400 hours = 61

	TIME OF FIX		TYPE OF FIX	LATITUDE	LONGITUDE
1.	0000	X	DR	15-08N	167-39W
2.	0800	X	CELESTIAL	14-25N	168 48W
3.	0615	X C/C	TO 225°T	14-35N	168-38W
4.	1200	X	CELESTIAL	14-00N	169-21 W
5.	1000	X	CELESTIAL	12-56N	170-16 W

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
0100						
0200	14-58N	167-58W				
0300						
0400	14-48N	168-19W				
0500						
0600	14-37N	168-36W				
0700	31	42				
0800	14-25N	168-48 W				
0900	14-19N	168-56W				
1000	14-12N	169-04W				
1100	14-06N	169-12W				
1200	14-00N	169-21 W				
1300	13-52N	169-28W				
1400	13-44N	169-35 W				
1500	13-36N	169-41W				
1600	13-28N	169-48 W				
1700	13-20N	169-55W				
1800	13-12N	170-02W				
1900	13-03N	170-09W				
2000	12-56N	170-16 W				
2100	12-50N	170-24W				
2200	12-43N	170-33W				
2300	12-36N	170-44W				
2400	12-29N	170-50W				

Date 19 FEB 1967 Ship GEORGE EASTMAN (YAG 39) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time 0648 Position: Lat. 12-33N, Long. 171-34W

Sunset: Time 1828 Position: Lat. 13-48N, Long. 170-50W

Miles travelled from 0000 hours to sunrise = 71

Miles travelled from sunrise to sunset = 99

Miles travelled from sunset to 2400 hours = 41

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.	0000 X	D.R.	12-29N	170-50W
2.	0325 X	C/C TO 314°T	12-04N	171-15W
3.	0800 X	CELESTIAL	12-43N	171-48W → C/C TO 045
4.	1200 X	CELESTIAL	13-11N	171-22W
5.	2000 X	CELESTIAL	13-55N	170-43W

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
0100						
0200	12-16N	171-06W				
0300						
0400	12-12N	171-21W				
0500						
0600	12-28N	171-34W				
0700	12-35	171-41W				
0800	12-43N	171-48W				
0900	12-50	171-42				
1000	12-57N	171-35W				
1100	13-04N	171-29				
1200	13-11N	171-22W				
1300	13-16N	171-17W				
1400	13-22N	171-12W				
1500	13-27.5	171-07.5				
1600	13-33N	171-03W				
1700	13-38.5	170-58W				
1800	13-44N	170-53W				
1900	13-49.5	170-48W				
2000	13-55N	170-43W				
2100						
2200	14-07N	170-33W				
2300						
2400	14-18N	170-22.5W				

Date 10 FEB 1967 Ship GEORGE EASTMAN (YAG 39) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time 0641 Position: Lat. 14-54N, Long. 169-48.5

Sunset: Time 1822 Position: Lat. 16-32N, Long. 169-39W

Miles travelled from 0000 hours to sunrise = 49

Miles travelled from sunrise to sunset = 103

Miles travelled from sunset to 2400 hours = 59

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE	
1.	0000 X	D.R. ~~14-18N~~	14-18N	170-22W	
2.	0800 X	CELESTIAL	15-02N	169-40W	C/C 005°T FOR J.I.
3.	1200 X	CELESTIAL	15-41N	169-39W	C/C 037°T
4.	1709 X	DR	16-27N	169-38W	
	2000 X	CELESTIAL	16-21N	169-53W	
	1828 X	DR	16-33N	169-36W	C/C 230°T
5.					

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
0100	14-23N	170-17W				
0200	14-28.5N	170-12W				
0300	14-34N	170-07W				
0400	14-40N	170-02W				
0500	14-44N	169-56				
0600	14-51N	169-51W				
0700	14-56	169-45				
0800	15-02N	169-40W				
0900	15-12N	40				
1000	15-22N	169-40W				
1100	15-31N	40				
1200	15-41N	169-39W				
1300	15-49N	39				
1400	15-57N	169-40W				
1500	16-06N	169-42W				
1600	16-14N	169-44W				
1700	16-22N	169-42W				
1800	16-30N	169-40W				
1900	16-25N	169-47				
2000	16-21N	169-53W				
2100	16-15N	170-02W				
2200	16-09N	170-10W				
2300	16-03	170-18				
2400	15-56N	170-27W				

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Date 21 FEB 1967 Ship GEORGE EASTMAN (YAG 39) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time 0647 Position: Lat. 15-11N, Long. 171-26W

Sunset: Time 1831 Position: Lat. 14-07S, Long. 173-00W

Miles travelled from 0000 hours to sunrise = 72

Miles travelled from sunrise to sunset = 129 -24

Miles travelled from sunset to 2400 hours = ~~7~~ 49

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE	
1.	0000 X	D.R	15-5W	170.27W	
2.	0800 X	CELESTIAL	15-03N	171-36W	
3.	1200 X	CELESTIAL	14-3GN	172-12W	
4.	1800X	DR	13 55N	173-02W	C/C TO 035°T
5.	2000 X	CELESTIAL	14-15N	172.51W	

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
0100	15-49	170-35				
0200	15-42N	170-43 W				
0300	-36	-52				
0400	15-30N	171-01W				
0500	15 24	171-09W				
0600	15-18N	171-18W				
0700	15-11	171-27W				
0800	15-03 N	171-36W				
0900	14-57	171-45W				
1000	14-50N	171-54W				
1100	14-43	172-03W				
1200	14-36N	172-12 W				
1300						
1400	14-23N	172-30W				
1500						
1600	14-09N	172-45W				
1700	14-02	172-54				
1800	13 55N	173-02W				
1900						
2000	14-15N	172-51W				
2100						
2200	14-21N	172-45 W				
2300						
2400	14-46N	172-37W				

Date 22 FEB 1967 Ship GEORGE EASTMAN (YAG 39) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time 0645 Position: Lat. 15-33 N, Long. 172-13 W

Sunset: Time 1834 Position: Lat. 16-18 N, Long. 172-25 W

Miles travelled from 0000 hours to sunrise = 54

Miles travelled from sunrise to sunset = 134

Miles travelled from sunset to 2400 hours = ~~65~~ 56 - ?

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.	0000 X	DR	14-46N	172-37W
2.	0800 X	CELESTIAL	15-43N	172-07W
3.	1200X	CELESTIAL	16-19N	171-45W
4.	1345X	DR	16-35N	171-36W
5.	2000X	CELESTIAL	16-00N	172-41W

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
0100						
0200	15-01N	172-30W				
0300						
0400	15-15N	172-21W				
0500						
0600	15-29N	172-14W				
0700	15-36	172-10.5				
0800	15-43N	172-07W				
0900	15-47	172-01				
1000	16-01N	171-55W				
1100	16-10	171-50				
1200	16-19N	171-45W				
1300	16-26	171-42W				
1400	16-34N	171-38W				
1500	16-39	171-48				
1600	16-23N	171-58W				
1700	16-18	172-10				
1800	16-12N	172-21W				
1900	16-06N	172-31				
2000	16-00N	172-41W				
2100	15-56	172-50				
2200	15-52N	173-00W				
2300	15-48N	173-10				
2400	15-43N	173-20W				

Date 23 FEB 1967 Ship GEORGE EASTMAN (YAG 39) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time 0653 Position: Lat. 15-20 N, Long. 173-05 W

Sunset: Time 1835 Position: Lat. 16-28N, Long. 172-50 W

Miles travelled from 0000 hours to sunrise = 68

Miles travelled from sunrise to sunset = 95

Miles travelled from sunset to 2400 hours = 45

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE	
1.	0000 X	DR	15-43 N	173-20 W	
2.	0545 X	DR	15-19N	174-13 W	C/C 048° T
3.	0800 X	CELESTIAL	15-34N	173-56 W	
4.	1200 X	CELESTIAL	15-56 N	173-30 W	
5.	2000 X	CELESTIAL	16-35N	172-40 W	
	2225 X	DR	16-50 N	172-24 W	C/C TO 070° T

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
0100						
0200	15-34N	173-38 W				
0300						
0400	15-26N	173-58 W				
0500						
0600	15-20N	174-12 W				
0700	15-27	174-04				
0800	15-34N	173-56 W				
0900						
1000	15-46N	173-44 W				
1100	15-51	173-37 W				
1200	15-56N	173-30 W				
1300						
1400	16-06N	173-18 W				
1500	16-11N	173-11.5 W				
1600	16-16N	173-05 W				
1700						
1800	16-26N	172-53 W				
1900						
2000	16-35N	172-40 W				
2100						
2200	16-48N	172-28 W				
2300						
2400	16-50 N	172-13 W				

958b-SI-MNH
Rev. 9/28/66

Date 24 FEB 1967 Ship GEORGE EASTMAN (YAG 39) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time 0645 (EMT & 6 MT) Position: Lat. 16-52N, Long. 171-13W

Sunset: Time 1924 Position: Lat. 16-43N, Long. 169-50W

Miles travelled from 0000 hours to sunrise = 57

Miles travelled from sunrise to sunset = 81

Miles travelled from sunset to 2400 hours = 43

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE	
1.	0000 X	DR	16-50N	172-12 W	
2.	0500 W	CELESTIAL	16-53N	171-11 W	
3.	1200 X	CELESTIAL	17-00.6	170-33 W	
4.	1400 X	DR	17-00 N	170-13W	C/C TO 140°T
	1700 X	DR	16-42N	169-55 W	A/E STOP
5.	1840 X	DR	16-41N	170-00 W	COURSE 070°T
	2000 X	CELESTIAL	16-46N	169-50W	

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
0100		~~171-55W~~				
0200	16-51N	171-55W				
0300		171-50				
0400	16-51.5N	171-45W				
0500						
0600	16-52N	171-28 W				
0700	16-52.5N	171-20				
0800	16-53 N	171-11 W				
0900	16-55	171-09 W				
1000	16-57N	170-53 W				
1100	16-58.5N	170-43				
1200	17-00N	170-33W				
1300	17-00	170-23				
1400	1700 N	170-13 W				
1500	16 54	170-06				
1600	16-47N	170-00W				
1700	16-42	69 55				
1800	42	6957				
1900	41	170-00				
2000	16-46N	169-50W				
2100		43				
2200	16-52N	169-32W				
2300						
2400	17-02N	169-15W				

→ ADVANCED CLOCKS ONE HOUR TO CONFORM WITH + 10 (W) TIME ZONE

Date 25 FEB 1967 Ship Cecelia Casimir (YAG 39) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time 0733 Position: Lat. 17-23N, Long. 168-08 W

Sunset: Time 1910 Position: Lat. 17 57 N, Long. 166-34 W

Miles travelled from 0000 hours to sunrise = 69

Miles travelled from sunrise to sunset = 96

Miles travelled from sunset to 2400 hours = 46

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.	0000 W	DR	17-02N	169-15 W
2.	0800 W	LORAN	17-25N	168-03 W
3.	1200 W	CELESTIAL	17-36N	167-37 W
4.	2000 W	LORAN	18-00N	166-25 W
5.				

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
0100						
0200	17 05N	168-57 W				
0300						
0400	17-12N	168-39 W				
0500						
0600	17-18N	168-21 W				
0700						
0800	17-25N	168-03 W				
0900						
1000	17-30N	167-46 W				
1100	33	40				
1200	17-36N	167 33 W				
1300	39	25				
1400	17-42N	167-16 W				
1500	45	08				
1600	17-49N	166-51 W				
1700						
1800	17-54N	166-43 W				
1900	57	34				
2000	18-00N	166-25 W				
2100						
2200	18-07N	166-07 W				
2300						
2400	18-19N	165-30 W				

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Date 26 FEB 1967 Ship GEORGE EASTMAN (YAG 39) Cruise No. _____

Organization FB Recorder _____

Sunrise: Time 0720 Position: Lat. 18-38N, Long. 164-40W

Sunset: Time 1855 Position: Lat. 19-32N, Long. 163-00W

Miles travelled from 0000 hours to sunrise = 70

Miles travelled from sunrise to sunset = 110

Miles travelled from sunset to 2400 hours = 39

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE	
1.	0000 GCT	DR	18-13N	165-48W	
2.	0800 GCT	LORAN CELESTIAL	18-39N	164-34W	
3.	1200 GCT	LORAN	19-02N	163-58.5W	
4.	2000 GCT	LORAN	19-38N	162-50W	C/S 8 KTS
5.					

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
0100						
0200	18-19N	165-30W				
0300						
0400	18-25N	165-12W				
0500						
0600	18-32N	164-54W				
0700						
0800	18-39N	164-34W				
0900	45	25				
1000	18-52N	164-16W				
1100	57	07				
1200	19-02N	163-58.5				
1300	07	49				
1400	19-11N	163-41				
1500	15	33				
1600	19-19N	163-25				
1700	24	17				
1800	19-28N	163-08				
1900	33	162-59				
2000	19-38N	162-50W				
2100						
2200	19-44N	162-37W				
2300						
2400	19-50N	162-24W				

Date 27 FEB 1967 Ship GEORGE EASTMAN (YAG 39) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time 0705 Position: Lat. 20-10N, Long. 161-36W

Sunset: Time 1845 Position: Lat. 20-AN, Long. 160-17W

Miles travelled from 0000 hours to sunrise = 50.

Miles travelled from sunrise to sunset = 80

Miles travelled from sunset to 2400 hours = 28

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE	
1.	0000W	DR	19-50N	162-24W	
2.	0800W	LORAN	20 13N	161-29.5W	
3.	1200W	LORAN	20-22.5N	161-08W	
	1300W	DR	20-25.0	161-00W	C/C 090°T
4.	2000W	LORAN	20-18N	160-04.5W	C/C 067°T
5.					

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
		162-24				
0100		15				
0200	19-57N	162-11W				
0300		04				
0400	20-00N	161-57W				
0500		50				
0600	20-05N	161-43W				
0700	20-09	34				
0800	20-13N	161-29.5W				
0900	15	24				
1000	20-17N	161-18W				
1100	20	13				
1200	20 22.5N	161-08W				
1300	25	00				
1400	20-24N	160-55W				
1500	24	47				
1600	20 23N	160 38W				
1700	22	30				
1800	20-20N	160 22W				
1900	19	13				
2000	20 18N	160-04.5W				
2100	19					
2200	20-20N	159 52W				
2300						
2400	20 23N	159 47W				

NO

Date 28 FEB 1967 Ship _____ ( ) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time 0658 Position: Lat. 20-37N, Long. 155-17W

Sunset: Time 1700 Position: Lat. —, Long. —

Miles travelled from 0000 hours to sunrise = 30

Miles travelled from sunrise to sunset = 80

Miles travelled from sunset to 2400 hours = —

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.	0000 W	~~DR~~ LORAN	20-23N	159-47W
2.	0800 W	LORAN	20-40N	159-10W
3.	1200 W	LORAN		
4.				
5.				

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
0100						
0200	20-27N	157 39W				
0300						
0400	20-31N	159-31W				
0500						
0600	20-35N	159 23W				
0700	20-37	159-17				
0800	20-40N	157-10W				
0900	43	59-03				
1000	47	58-56				
1100	52	58-49				
1200	20 56	158-42				
1300	21-01	-35				
1400	5	28				
1500	10	21				
1600	15	14				
1700	20	07				
1800	21-25	58-03				
1900	21-30	57-00				
2000						
2100						
2200						
2300						
2400						

OPNAV FORM 3144-1 (9-64)
0107-716-4100

DEPARTMENT OF THE NAVY

SHIP WEATHER OBSERVATION SHEET

USS _____ DATE (GMT) _____ 19 _____

AT/PASSAGE FROM _____ TO _____

TABLE I

TIME (GMT)	WINDS ☐ √ IF ESTIMATED		VISIBILITY (Miles)	WEATHER (Symbols)	BAROMETER (Inches)	TEMPERATURE (Degrees and tenths)		CLOUDS			SEA WATER TEMP. (Degrees and tenths)	SEA WAVES			SWELL WAVES		
	Direction (True)	Force (Knots)				Dry Bulb	Wet Bulb	Amount (Tenths)	Height	Type		Direction (True)	Period (Seconds)	Height (Feet)	Direction (True)	Period (Seconds)	Height (Feet)
00																	
01																	
02																	
03																	
04																	
05																	
06																	
07																	
08																	
09																	
10																	
11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	

OPNAV FORM 3144-1 (9-44)
0107-716-4100

DEPARTMENT OF THE NAVY

SHIP WEATHER OBSERVATION SHEET

USS GEORGE E. YKC 39. DATE (GMT) 16 AUG 19 57

AT/PASSAGE FROM PHNSY TO

TABLE I

TIME (GMT)	WINDS ☐ IF ESTIMATED		VISIBILITY (Miles)	WEATHER (Symbols)	BAROMETER (Inches)	TEMPERATURE (Degrees and tenths)		CLOUDS			SEA WATER TEMP. (Degrees and tenths)	SEA WAVES			SWELL WAVES		
	Direction (True)	Force (Knots)				Dry Bulb	Wet Bulb	Amount (Tenths)	Height	Type		Direction (True)	Period (Seconds)	Height (Feet)	Direction (True)	Period (Seconds)	Height (Feet)
14 00	220	5	10	BKN	30.07	79	74	9	2000	SC	80	220	4	1	110	3	2
15 01	130	8	10	BKN	30.05	84	74	6	2000	CU	84	220	4	1	220	3	2
02	120	11	10	R	30.04	74	71	8	2000	CU	84	220	4	1	220	3	2
03	120	11	10	R	30.04	74	71	8	2000	CU	84	220	4	1	220	3	2
04	100	14	10	BKN	30.04	75	72	6	2000	CU	84	220	4	1	220	3	2
05	105	12	10	BKN	30.05	77	72	5	2000	CU	86	220	4	1	220	3	2
06	105	12	10	BKN	30.05	76	71	5	2000	CU	84	220	4	1	220	3	2
07	115	24	10	SCT	30.09	75	70	3	2000	CU	80	110	4	2	115	3	3
08	125	26	10	SCT	30.09	76	70	4	2000	CU	80	115	4	3	120	3	3
09	125	25	10	SCT	30.10	76	70	5	2000	CU	80	130	4	3	130	3	3
10	128	25	10	SCT	30.10	76	70	4	2000	CU	80	125	4	3	130	3	3
11	114	24	10	SCT	30.10	74	71	6	2000	CU	80	125	4	3	120	3	3
12	110	23	10	SCT	30.08	75	71	5	2000	CU	80	125	4	3	120	3	3
13	119	23	10	SCT	30.06	76	71	6	2000	CU	80	120	4	3	120	3	3
14	145	20	10	SCT	30.04	76	71	5	2000	CU	80	145	4	3	135	3	3
15	145	20	10	SCT	30.02	76	71	5	2000	CU	80	145	4	3	135	3	3
16	127	20	10	SCT	30.01	76	71	6	2000	CU	80	145	4	3	135	3	3
17	155	18	10	SCT	30.02	78	71	6	2000	CU	80	155	4	2	140	3	5
18	114	23	10	SCT	30.05	76	70	5	2000	CU	80	155	4	2	140	3	5
19	115	24	10	SCT	30.07	76	71	6	2000	CU	80	155	4	2	140	3	5
20	115	20	10	SCT	30.08	79	71	6	2000	CU	80	155	4	2	140	3	5
21	120	19	10	SCT	30.08	79	70	3	2000	CU	80	155	4	2	140	3	5
22	110	24	10	SCT	30.06	80	73	3	2000	CU	80	140	3	3	135	3	5
23	100	24	10	SCT	30.04	78	71	4	2000	CU	80	130	4	2	130	3	5

OPNAV FORM 3144-1 (9-64)
0102-714-4100

DEPARTMENT OF THE NAVY

SHIP WEATHER OBSERVATION SHEET

USS GEORGE EASTMAN YAG-39 DATE (GMT) 13 FEBRUARY 19 67

AT PASSAGE FROM _____ TO _____

TABLE I

	TIME (GMT)	WINDS ☐ ✓ IF ESTIMATED		VISIBILITY (Miles)	WEATHER (Symbols)	BAROMETER (Inches)	TEMPERATURE (Degrees and tenths)		CLOUDS			SEA WATER TEMP (Degrees and tenths)	SEA WAVES			SWELL WAVES		
		Direction (True)	Force (Knots)				Dry Bulb	Wet Bulb	Amount (Tenths)	Height	Type		Direction (True)	Period (Seconds)	Height (Feet)	Direction (True)	Period (Seconds)	Height (Feet)
14	00	110	27	10	SCT	30.01	78	70	2	2000	CU	80	120	3	3	120	3	5
15	01	095	23	10	SCT	29.99	80	72	2	2000	CU	80	115	3	3	115	3	4
16	02	113	17	10	SCT	29.99	80	73	3	2000	CU	80	110	3	3	120	3	4
17	03	091	21	10	SCT	29.99	79	72	4	2000	CU	80	115	3	3	125	3	5
18	04	091	21	10	SCT	30.00	78	71	3	2000	CU	80	110	3	3	120	3	5
19	05	108	19	10	SCT	30.01	77	71	3	2000	CU	80	105	3	3	115	3	5
20	06	109	19	10	SCT	30.03	77	71	3	2000	CU	80	105	3	3	115	3	4.5
21	07	10[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	08	121	17	10	SCT	30.04	78	72	4	2000	CU	80	121	3	2	115	[illegible]	4-5
23	09	121	17	10	[illegible]	30.04	76	72	4	2000	CU	80	121	3	2	115	[illegible]	[illegible]
24	10	096	16	10	SCT	30.01	77	71	2	2000	CU	81	121	3	2	121	3	4
00	11	096	20	10	SCT	30.00	77	71	2	2000	CU	81	121	3	2	121	3	4
01	12	095	19	10	SCT	30.00	77	71	2	2000	CU	81	121	3	2	121	3	4
02	13	093	14	10	SCT	29.98	76	71	3	2000	CU	81	121	3	2	121	3	4
03	14	094	20	10	SCT	29.97	77	71	3	2000	CU	80	120	3	2	120	3	4
04	15	095	22	10	SCT	29.96	76	71	4	2000	CU	80	120	3	2	120	3	4
05	16	100	20	10	SCT	29.95	75	71	4	2000	CU	80	130	3	2	130	3	4
06	17	100	22	10	SCT	30.00	76	70	4	2000	CU	80	110	3	2	110	3	3
07	18	087	23	10	SCT	30.00	77	71	5	2000	CU	81	115	2	1	105	3	3
08	19	103	24	10	SCT	30.03	78	71	5	2000	CU	81	100	3	1	105	3	3
09	20	092	22	10	SCT	30.04	78	72	5	2000	CU	81	110	3	1	115	3	3
10	21	098	20	10	SCT	30.04	77	72	6	2000	CU	81	110	3	1	110	3	3
11	22	090	20	10	SCT	30.04	75	72	6	2000	CU	81	110	3	1	110	3	3
12	23	085	19	10	SCT	30.00	74	72	6	2000	CU	81	095	2	1	100	3	3

TABLE II

DD FORM 1932 (1964)

DEPARTMENT OF THE NAVY

SHIP WEATHER OBSERVATION SHEET

USS _____ DATE GMT 12 February 19 --

AT PASSAGE FROM _____ TO _____

TABLE I

TIME (GMT)	WINDS (C) IF ESTIMATED		VISIBILITY (Miles)	WEATHER (Symbols)	BAROMETER (Inches)	TEMPERATURE (Degrees and tenths)		CLOUDS			SEA WATER TEMP (Degrees and tenths)	SEA WAVES			SWELL WAVES		
	Direction (True)	Force (Knots)				Dry Bulb	Wet Bulb	Amount (Tenths)	Height	Type		Direction (True)	Period (Seconds)	Height (Feet)	Direction (True)	Period (Seconds)	Height (Feet)
00	076	17	10	SCT	29.98	74	72	6	2000	CU	82	045	3	2	045	4	5-6
01	085	20	10		29.95	76	70	1		CU	81			2			5-6
02	089	16	10	SCT	29.93	80	76	3		CU	81	060	3	3	060	4	5
03	090	17	10	SCT	29.92	82	74	3		CU	81	060	3	3			
04	085	23	10	SCT	29.89	77	72	3		CU	82	045	3	3	045	4	5
05	080	26	10	SCT	29.86	76	74	4		CU	81	060	3	3	060	4	5
06	080	19	10	SCT	29.88	76	72	3		CU		060	3	3	045	4	5
07	075	25			29.85	75	73										
08	065	21	10	SCT	29.80	75	72	3	2000	CU	81	060	3	3	060	4	5
09	057	24	10	SCT	29.78	74	72	3		CU	81	060	3	3	060	4	5
10	070	22	10	SCT	29.80	75	73	3	2000	CU	81	060	3	3	060	4	5
11	080	26	10	SCT	29.80	74	72	3	2000	CU	81	060	3	3	060	4	5
12	070	23	10	SCT	29.80	74	72	3	2000	CU	81	060	3	3	060	4	5
13	079	22	10	SCT	29.81	77	72	3	2000	CU	81	060	3	3	060	4	5
14	080	22	10	SCT	29.83	77	72	4	2000	CU	81	060	3	3	060	4	5
15	080	25	10	SCT	29.82	77	74	3	2000	CU	84	060	3	3	060	4	5
16	080	24	10	SCT	29.82	77	72	4	2000	CU	84	075	3	3	060	4	5
17	080	23	10	SCT	29.82	77	74	3	2000	CU	83	060	3	3	060	4	5
18	080	25	10	SCT	29.82	77	72	4	2000	CU	84	060	3	3	060	4	5
19	080	25	10	SCT	29.80	78	76	2	2000	CU	83	060	3	3	060	4	5
20	080	25	10	SCT	29.77	78	73	3	2000	CU	85	060	3	3	060	4	5
21	080	25	10	SCT	29.77	78	73	3	2000	CU	83	060	3	3	060	4	5
22	080	28	10	SCT	29.75	79	74	4	2000	CU	83	060	3	3	060	4	5
23	080	28	10	SCT	29.73	79	74	4	2000	CU	83	060	3	3	060	4	5

TABLE II

OPNAV FORM 3144-1 (8-41)

DEPARTMENT OF THE NAVY

SHIP WEATHER OBSERVATION SHEET

SHIP USS Edson DD 946 DATE (GMT) 19 APR 53 LAT 57

AT PASSAGE FROM STRIKE OPS. TO

TABLE I

TIME (GMT)	WINDS (IF ESTIMATED) Direction (True)	WINDS (IF ESTIMATED) Force (Knots)	VISIBILITY (Miles)	WEATHER (Symbols)	BAROMETER (Inches)	TEMPERATURE (Degrees and tenths) Dry Bulb	TEMPERATURE (Degrees and tenths) Wet Bulb	CLOUDS Amount (Tenths)	CLOUDS Height	CLOUDS Type	SEA WATER TEMP (Degrees and tenths)	SEA WAVES Direction (True)	SEA WAVES Period (Seconds)	SEA WAVES Height (Feet)	SWELL WAVES Direction (True)	SWELL WAVES Period (Seconds)	SWELL WAVES Height (Feet)
00	067	27	10	SCT	29.93	77	71	4	2000	CU	83	060	3	2	070	4	5
01	069	27	10	SCT	29.92	80	75	4	2000	CU	85	060	3	2	070	4	5
02	067	27	10	SCT	29.87	80	75	4	2000	CU	85	060	3	2	070	4	5
03	075	25	10	SCT	29.88	81	74	4	2000	CU	85	070	3	2	070	4	5
04	060	24	10	SCT	29.86	81	74	3	2000	CU	81	060	3	2	070	4	5
05	070	20	10	SCT	29.89	81	74	3	2000	CU	81	070	3	2	070	4	5
06	070	21	10	SCT	29.90	77	74	3	2000	CU	81	070	3	2	070	4	5
07	060	23	10	SCT	29.90	80	74	3	2000	CU	81	060	3	2	070	4	5
08	062	24	10	SCT	29.92	79	74	4	2000	CU	84	060	3	2	070	4	5
09	060	23	10	SCT	29.92	80	74	4	2000	CU	84	060	3	2	070	4	5
10	062	23	10	SCT	29.92	79	74	4	2000	CU	84	060	3	2	070	4	5
11	065	24	10	SCT	29.92	79	74	4	2000	CU	84	060	3	2	070	4	5
12	064	24	10	SCT	29.90	79	74	4	2000	CU	84	060	3	2	070	4	5
13	069	24	10	SCT	29.90	79	74	4	2000	CU	84	060	3	2	070	4	5
14	065	25	10	SCT	29.86	77	72	5	2000	CU	82	060	3	2	070	4	5
15	065	24	10	SCT	29.87	77	73	4	2000	CU	84	060	3	2	070	4	5
16	070	21	10	SCT	29.90	78	73	4	2000	CU	83	060	3	2	070	4	5
17	070	22	10	SCT	29.89	77	74	5	2000	CU	83	060	3	2	070	4	5
18	070	25	10	SCT	29.91	78	74	5	2000	CU	83	070	3	2	070	4	5
19	070	23	10	SCT	29.92	78	74	5	2000	CU	84	070	3	2	070	4	5
20	070	22	10	SCT	29.94	77	74	5	2000	CU	84	070	3	2	070	4	5
21	070	26	10	SCT	29.95	77	74	6	2000	CU	84	070	3	2	070	4	5
22	070	25	10	SCT	29.95	78	74	5	2000	CU	84	070	3	2	070	4	5
23	070	25	10	SCT	29.95	78	74	5	2000	CU	84	070	3	2	070	4	5

OPNAV FORM 3144-1 (9-64)
S/N 0107-774-3100

DEPARTMENT OF THE NAVY

SHIP WEATHER OBSERVATION SHEET

USS [illegible] DATE GMT [illegible]

AT PASSAGE FROM [illegible] TO [illegible]

TABLE I

	TIME (GMT)	WINDS [ ] M/HR ESTIMATED		VISIBILITY (Miles)	WEATHER (Symbols)	BAROMETER (Inches)	TEMPERATURE (Degrees and tenths)		CLOUDS			SEA WATER TEMP. (Degrees and tenths)	SEA WAVES			SWELL WAVES		
		Direction (True)	Force (Knots)				Dry Bulb	Wet Bulb	Amount (Tenths)	Height	Type		Direction True	Period (Seconds)	Height (Feet)	Direction True	Period (Seconds)	Height (Feet)
13	00	[illegible]	24	10	SCT	29.92	80	75	6	[illegible]	CU	[illegible]	075	3	4	060	3	5-6
14	01	075	27	10	SCT	29.90	80	75	6	2000	CU	84	075	3	4	065	3	5-6
15	02	075	29	10	SCT	29.87	80	75	6	[illegible]	CU	84	075	3	4	065	3	5-6
16	03	070	12	10	SCT	29.87	80	75	5	2000	CU	84	080	3	3	075	4	6
17	04	070	21	10	[illegible]	29.87	80	79	6	2000	CU	84	075	3	4	070	4	6
18	05	081	23	10	[illegible]	29.88	80	[illegible]	[illegible]	[illegible]	[illegible]	84	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	06	080	24	10	SCT	29.89	85	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	07	080	25	10	SCT	29.93	78	77	6	2000	CU	84	085	3	4	070	4	5-6
21	08	080	26	10	SCT	29.95	77	73	6	2000	CU	84	080	3	4	070	4	5-6
	09	085	24	10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	11	090	30	8	OVC	29.94	77	73	9	3000	CU	[illegible]	100	3	4	075	4	7
	12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	13	090	25	8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	84	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	14	[illegible]	31	10	SCT	29.91	77	72	5	2000	CU	84	080	3	4	080	4	7
	15	092	23	10	SCT	[illegible]	77	71	4	[illegible]	CU	82	075	3	4	[illegible]	[illegible]	[illegible]
	16	[illegible]	29	10	SCT	29.90	77	71	6	2000	CU	82	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	17	084	26	10	SCT	29.91	78	72	6	2000	CU	82	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	18	084	27	10	SCT	29.93	78	72	5	2000	82	82	085	2	4	[illegible]	[illegible]	[illegible]
	19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	22	100	22	10	SCT	29.91	78	72	5	2000	CU	82	100	3	4	080	4	7
	23	095	28	10	SCT	29.93	80	73	5	2000	CU	83	095	3	5	090	4	7

NAVY FORM 2745 (1940)

DEPARTMENT OF THE NAVY

SHIP WEATHER OBSERVATION SHEET

USS GEORGE EASTMAN (MAD-39) DATE (GMT) TUESDAY 21 to 67

AT PASSAGE FROM SPECIAL OP TO

TABLE I

Date (GMT)	WINDS (If estimated) Direction (True)	WINDS (If estimated) Force (Knots)	Visibility (Miles)	Weather (Symbols)	Barometer (Inches)	Temperature (Degrees and tenths) Dry Bulb	Temperature (Degrees and tenths) Wet Bulb	Clouds Amount (Tenths)	Clouds Height	Clouds Type	Sea Water Temp. (Degrees and tenths)	Sea Waves Direction (True)	Sea Waves Period (Seconds)	Sea Waves Height (Feet)	Swell Waves Direction (True)	Swell Waves Period (Seconds)	Swell Waves Height (Feet)
00	105	30	10	SCT	29.95	79	71	5	2000	CU	83	075	3	4	084	3	5-6
01	90	32	10	SCT	29.92	79	71	4	1000	CU	81	075	3	4	075	3	5-6
02	100	28	10	SCT	29.93	78	70	3	2000	CU	81	076	3	4	080	3	10
03	103	29	10	SCT	29.93	78	71	4	2000	CU	81	090	3	4	091	3	10
04	101	29	10	SCT	29.94	78	71	5	2000	CU	81	095	3	4	086	3	10
05	101	30	10	SCT	29.94	80	71	5	2000	CU	81	091	3	4	090	3	10
06	098	26	10	SCT	29.96	78	70	4	2000	CU	82	091	2	3	081	3	5
07	090	28	10	SCT	29.97	78	70	4	2000	CU	82	090	3	4	095	3	5
08	080	25	10	SCT	30.00	78	70	4	2000	CU	82	090	3	4	090	3	5
09	090	28	10	SCT	30.01	78	71	4	2000	CU	82	090	3	4	090	3	5
10	090	25	10	SCT	30.02	78	70	4	2000	CU	82	090	3	4	090	3	5
11	090	21	10	SCT	29.98	79	70	2	2000	CU	83	085	3	3	080	3	5
12	090	25	10	SCT	29.98	76	70	2	2000	CU	82	090	3	3	090	3	5
13	090	25	10	SCT	29.97	82	69	2	2000	CU	81	085	3	3	090	3	5
14	085	25	10	SCT	29.92	77	70	2	2000	CU	81	090	3	3	090	3	5
15	091	29	10	SCT	29.92	76	70	3	2000	CU	82	091	3	4	095	3	5
16	091	27	10	SCT	29.91	76	69	4	2000	CU	82	090	3	3	095	3	5
17	066	29	10	SCT	29.91	76	69	2	2000	CU	82	090	3	3	090	3	5
18	068	30	10	SCT	29.92	76	69	3	2000	CU	82	090	3	3	090	3	5
19	090	25	10	SCT	29.98	76	69	3	2000	CU	82	090	3	3	092	3	5-6
20	090	25	10	SCT	29.95	76	70	3	2000	CU	82	090	3	3	090	3	5-6
21	090	26	10	SCT	29.99	76	70	3	2000	CU	82	090	3	3	090	3	5-6
22	090	28	10	SCT	29.96	79	74	3	2000	CU	82	090	3	3	090	3	5-6
23	095	25	10	SCT	29.94	81	71	1	2000	CU	84	105	3	3	100	3	5-6

TABLE II
SYNOPTIC OBSERVATIONS

OPNAV FORM 3144-1 (9-44)
0107-714-4100

DEPARTMENT OF THE NAVY

SHIP WEATHER OBSERVATION SHEET

USS GEORGE EASTMAN (MC-39) DATE (GMT) WEDESDAY 22 19 67

AT/PASSAGE FROM SPECIAL OP TO

TABLE I

	TIME (GMT)	WINDS ☐ IF ESTIMATED		VISIBILITY (Miles)	WEATHER (Symbols)	BAROMETER (Inches)	TEMPERATURE (Degrees and tenths)		CLOUDS			SEA WATER TEMP. (Degrees and tenths)	SEA WAVES			SWELL WAVES		
		Direction (True)	Force (Knots)				Dry Bulb	Wet Bulb	Amount (Tenths)	Height	Type		Direction (True)	Period (Seconds)	Height (Feet)	Direction (True)	Period (Seconds)	Height (Feet)
5	00	015	25	10	SCT	29.91	81	71	1	2000	CU	83	115	3	3	110	3	5-6
4	01	025	25	10	SCT	29.89	79	73	1	2000	CU	84	110	3	3	105	3	5-6
5	02	155	25	10	SCT	29.88	81	73	1	2000	CU	84	110	3	3	105	3	5-6
6	03	033	28	10	SCT	29.85	84	75	1	2000	CU	83	100	3	3	105	3	7
7	04	031	26	10	SCT	29.87	82	73	2	2000	CU	82	100	3	3	105	3	6
8	05	015	14	10	SCT	29.88	81	73	3	2000	CU	81	115	3	3	110	3	7
9	06	010	14	10	SCT	29.84	77	73	3	2000	CU	81	070	3	3	025	3	7
10	07	101	26	10	SCT	29.83	79	74	3	2000	CU	82	075	3	3	050	3	6
11	08	105	21	10	SCT	29.82	80	73	3	2000	CU	82	120	3	3	050	3	6
12	09	102	26	10	SCT	29.89	78	72	4	2000	CU	82	091	3	3	050	3	7
13	10	095	26	10	SCT	29.90	78	72	3	2000	CU	82	160	3	3	050	3	7
14	11	093	27	10	SCT	29.96	75	72	3	2000	CU	82	080	3	3	050	4	6
15	12	090	26	10	SCT	29.93	78	72	3	2000	CU	82	090	3	3	050	3	5
16	13	080	25	10	SCT	29.90	79	73	3	2000	CU	82	090	3	3	045	4	5-6
17	14	085	26	10	SCT	29.85	77	70	2	2000	CU	82	080	3	3	050	4	5-6
18	15	085	23	10	SCT	29.88	78	71	2	2000	CU	82	085	3	3	075	3	6
19	16	098	25	10	SCT	29.88	77	71	6	2000	CU	82	085	3	3	075	3	6
20	17	100	24	10	SCT	29.85	77	71	4	2000	CU	83	085	3	3	075	3	6
21	18	095	27	10	SCT	29.89	77	70	3	2000	CU	83	090	3	3	085	3	5-6
22	19	105	25	10	SCT	29.92	78	72	3	2000	CU	83	080	3	3	075	4	7
23	20	100	25	10	SCT	29.95	78	73	4	2000	CU	81	070	3	3	070	4	6
24	21	105	24	10	SCT	29.97	79	73	4	2000	CU	81	065	3	3	070	4	6
1	22	110	26	10	SCT	29.98	80	73	3	2000	CU	81	070	3	3	075	4	6
2	23	112	27	10	SCT	29.94	79	71	2	2000	CU	82	085	3	3	090	4	6

TABLE II

OPNAV FORM 3144-1 (9-44)
0107-714-4105

DEPARTMENT OF THE NAVY

SHIP WEATHER OBSERVATION SHEET

USS George Eastman (YAG-39) DATE (GMT) Thursday 23 19 67

AT/PASSAGE FROM Special ops TO

TABLE I

	TIME (GMT)	WINDS ☐ IF ESTIMATED		VISIBILITY (Miles)	WEATHER (Symbols)	BAROMETER (Inches)	TEMPERATURE (Degrees and tenths)		CLOUDS			SEA WATER TEMP. (Degrees and tenths)	SEA WAVES			SWELL WAVES		
		Direction (True)	Force (Knots)				Dry Bulb	Wet Bulb	Amount (Tenths)	Height	Type		Direction (True)	Period (Seconds)	Height (Feet)	Direction (True)	Period (Seconds)	Height (Feet)
13	00	100	29	10	SCT	29.93	79	72	4	3000	CU	82	085	3	3	090	3	6
14	01	100	28	10	SCT	29.94	78	72					090	3	3	095	3	6
15	02	095	28	10	SCT	29.90	79	73	5	3000	CU	82		3	3			6
16	03	090	28	10	SCT	29.90	77	72	6	2000	CU	82	090	3	4	095	3	6
17	04	085	24	10	SCT	29.93	81	73	6	2000	CU	83	100	3	3	105	3	5
18	05	090	26	10	SCT	29.96	80	73	6	2000	CU	82	100	3	3	105	3	5
19	06	095	33	10	SCT	29.91	80	73	6	2000	CU	82	105	3	3	110	3	4
20	07	085	24	10	SCT	29.93	78	71	5	2000	CU	81	095	3	2	100	3	4
21	08	085	21	10	SCT	29.95	77	70	3	2000	CU	83	090	3	2	095	3	4
22	09	090	24	10	SCT	29.96	77	70	2	2000	CU	83	085	3	2	090	3	4
23	10	085	28	10	SCT	29.95	77	71	2	2000	CU	82	090	3	2	095	3	4
24	11	090	22	10	SCT	29.95	79	72	3	2000	CU	82	095	3	2	100	3	4
01	12	090	27	10			78	72	1			81						
02	13	090	27	10	SCT	29.94	79	71	2	2000	CU	81	095	3	2	100	3	4
03	14	085	25	10	SCT	29.91	80	72	3	2000	CU	81	090	3	2	095	3	4
04	15	095	20	10	SCT	29.90	80	72	4	2000	CU	84	095	3	2	100	3	4
05	16	095	25	10	SCT	29.90	81	72	4	2000	CU	84	095	3	2	100	3	4
06	17	095	25	10	SCT	29.90	78	72	6	2000	CU	82	095	3	3	105	3	4-5
07	18	095	25	10	SCT	29.90	76	72	6	2000	CU	82	095	3	3	105	3	4-5
08	19	113	25	10	SCT	29.93	79	73	5	2000	CU	81	125	3	2	120	3	5
09	20	113	27	10	SCT	29.95	79	73	7	2000	CU	81	110	3	2	115	3	5
10	21	103	23	10	SCT	29.96	81	72	4	2000	CU	82	104	3	2	105	3	6
11	22	104	23	10	SCT	29.96	80	72	2	2000	CU	82	105	3	2	110	3	6
12	23	095	20	10	SCT	29.94	81	72	3	2000	CU	82	085	3	3	090	3	6

OPNAV FORM 3144-1 (9-64)
0107-714-4100

DEPARTMENT OF THE NAVY

SHIP WEATHER OBSERVATION SHEET

USS GEORGE EASTMAN YNG-39 DATE (GMT) 24 FEB (FRIDAY) 1967

AT/PASSAGE FROM _____ TO _____

TABLE I

TIME (GMT)	WINDS ☐ ✓ IF ESTIMATED		VISIBILITY (Miles)	WEATHER (Symbols)	BAROMETER (Inches)	TEMPERATURE (Degrees and tenths)		CLOUDS			SEA WATER TEMP. (Degrees and tenths)	SEA WAVES			SWELL WAVES		
	Direction (True)	Force (Knots)				Dry Bulb	Wet Bulb	Amount (Tenths)	Height	Type		Direction (True)	Period (Seconds)	Height (Feet)	Direction (True)	Period (Seconds)	Height (Feet)
00	105	28	10	SCT	29.92	80	73	3	2000	CU	82	090	3	3	090	4	6
01	105	23	10	SCT	29.90	80	73	2	4000	CI	82	085	3	3	085	4	6
02	105	23	10	SCT	29.88	79	71	1	2000	CU	82	085	3	3	085	4	6
03	102	26	10	SCT	29.87	79	71	1	2000	CU	82	080	3	3	085	4	6
04	099	27	10	SCT	29.89	79	71	1	2000	CU	82	095	3	3	090	4	6
05	103	23	10	SCT	29.89	79	71	5	2000	CU	84	095	3	3	090	4	6
06	103	20	10	SCT	29.90	78	72	5	2000	CU	84	095	3	3	090	4	6
07	103	20	10	SCT	29.90	74	72	5	2000	CU	84	095	3	3	090	4	6
08	100	25	10	SCT	29.93	74	72	5	2000	CU	82	090	3	3	090	4	5
09	070	23	10	SCT	29.96	76	71	5	2000	CU	82	070	3	2	090	4	4
10	087	17	10	SCT	29.96	76	71	5	2000	CU	82	087	3	2	090	4	4
11	073	20	10	SCT	29.94	77	72	8	2000	CU	82	110	3	2	115	4	5
12	073	20	10	SCT	29.94	77	72	5	2000	CU	82	110	3	2	115	4	5
13	073	20	10	SCT	29.94	77	72	5	2000	CU	82	110	3	2	115	4	5
14	055	22	10	BKN	29.92	77	70	8	2000	CU	82	090	3	2	090	4	4
15	050	20	10	SCT	29.92	77	70	4	2000	CU	82	095	3	3	095	4	5
16	055	15	10	SCT	29.93	76	71	4	2000	CU	82	085	3	3	085	4	5
17	105	16	10	SCT	29.92	76	71	4	2000	CU	81	100	3	3	100	4	5
18	112	21	10	SCT	29.93	76	70	4	2000	CU	81	100	3	3	110	4	5
19	058	17	10	SCT	29.96	79	72	3	2100	CU	81	095	3	3	110	4	5
20	060	20	10	SCT	29.97	77	70	5	2000	CU	80	095	3	3	110	4	5
21	056	13	10	SCT	29.98	78	72	7	2000	CU	81	100	3	3	110	4	5
22	110	20	10	SCT	29.98	78	72	7	2000	CU	81	100	3	3	100	4	5
23	100	20	10	SCT	29.98	78	72	7	2000	CU	81	100	3	3	100	4	5

TABLE II

DENAV FORM 3144-1 (9-64)
0107-714-4100

DEPARTMENT OF THE NAVY

SHIP WEATHER OBSERVATION SHEET

USS GEORGE EASTMAN (YAG 39) DATE (GMT) 25 SAT. 19 67

AT PASSAGE FROM SPECIAL OPS TO

TABLE I

	TIME (GMT)	WINDS ☐ IF ESTIMATED		VISIBILITY (Miles)	WEATHER (Symbols)	BAROMETER (Inches)	TEMPERATURE (Degrees and tenths)		CLOUDS			SEA WATER TEMP. (Degrees and tenths)	SEA WAVES			SWELL WAVES		
		Direction (True)	Force (Knots)				Dry Bulb	Wet Bulb	Amount (Tenths)	Height	Type		Direction (True)	Period (Seconds)	Height (Feet)	Direction (True)	Period (Seconds)	Height (Feet)
14	00	085	20	10	SCT	29.95	78	75	5	2000	CU	82	085	3	2	075	3	5
5	01	080	20	10	SCT	29.91	78	75	5	2000	CU	82	080	3	2	095	3	5
6	02	067	21	10	SCT	29.91	79	72	5	2000	CU	82	080	3	2	090	3	5
7	03	030	25	10	SCT	29.91	77	72	5	2000	CU	82	045	3	2	050	3	5
8	04	036	24	10	SCT	29.91	78	72	4	2000	CU	82	040	3	2	045	3	5
9	05	070	21	10	SCT	29.90	78	72	5	2000	CU	82	045	3	2	050	3	5
20	06	070	20	10	SCT	29.90	78	71	5	2000	CU	82	045	3	2	045	3	5
21	07	100	21	10	SCT	29.93	77	71	4	2000	CU	82	085	3	2	080	3	4
2	08	085	20	10	SCT	29.95	76	71	4	2000	CU	81	085	3	2	080	3	4
3	09	085	18	10	SCT	29.98	78	71	4	2000	CU	82	055	3	1	085	3	4
24	10	070	15	10	SCT	29.99	78	71	6	2000	CU	82	080	3	1	080	3	4
1	11	070	16	10	SCT	29.98	77	71	4	2000	CU	82	075	3	1	075	3	4
2	12	041	17	10	SCT	29.97	77	72	7	2000	CU	82	065	3	1	075	3	4
3	13	119	21	10	SCT	29.94	76	72	7	2000	CU	82	075	3	1	075	3	4
4	14	065	21	10	SCT	29.92	76	72	7	2000	CU	82	075	3	1	075	3	4
5	15	069	21	10	SCT	29.92	76	72	7	2000	CU	82	067	3	2	075	3	4
6	16	070	21	10	SCT	29.93	76	72	7	2000	CU	82	067	3	2	075	3	4
7	17	070	21	10	SCT	29.94	76	72	7	2000	CU	82	070	3	2	075	3	4
8	18	070	21	10	SCT	29.96	77	71	4	2000	CU	82	070	3	3	075	3	6
9	19	070	20	10	SCT	29.99	78	71	4	2000	CU	82	070	3	3	075	3	6
10	20	090	21	10	SCT	30.00	78	71	4	2000	CU	82	070	3	3	075	3	6
11	21	100	21	10	SCT	30.01	79	72	4	2000	CU	82	045	3	3	050	3	6
12	22	110	18	10	SCT	30.00	80	72	4	2000	CU	82	060	3	3	060	4	6
13	23	070	17	10	SCT	29.99	80	72	4	2000	CU	82	070	3	3	070	4	5

TABLE II

OPNAV FORM 3144-1 (9-64)
0107-714-4100

DEPARTMENT OF THE NAVY

SHIP WEATHER OBSERVATION SHEET

USS George Eastman DATE (GMT) 26 Feb. 19 67

AT/PASSAGE FROM Special Ops TO

TABLE I

TIME (GMT)	WINDS ☐ ✓ IF ESTIMATED		VISIBILITY (Miles)	WEATHER (Symbols)	BAROMETER (Inches)	TEMPERATURE (Degrees and tenths)		CLOUDS			SEA WATER TEMP. (Degrees and tenths)	SEA WAVES			SWELL WAVES		
	Direction (True)	Force (Knots)				Dry Bulb	Wet Bulb	Amount (Tenths)	Height	Type		Direction (True)	Period (Seconds)	Height (Feet)	Direction (True)	Period (Seconds)	Height (Feet)
00	095	21	10	SCT	29.98	79	71	4	2000	CU	82	060	3	2	055	4	6
01	080	16	10	BKN	29.96	79	69	#7	2000	CU	82	060	3	2	060	4	6
02	061	14	10	BKN	29.94	80	71	8	2000	CU	82	075	3	2	080	4	6
03	020	21	10	BKN	29.94	79	70	6	2000	CU	82	075	3	2	080	4	6
04	095	21	10	BKN	29.95	79	70	6	2000	CU	82	095	3	2	099	4	5
05	075	15	10	BKN	29.96	79	70	6	2000	CU	82	075	3	2	075	4	5
06	090	23	10	BKN	29.96	75	70	7	2000	CU	82	095	3	2	090	4	5
07	099	24	10	BKN	29.99	74	69	10	2000	CU	82	095	3	2	090	4	5
08	022	23	10	BKN	30.00	75	70	9	2000	CU	82	095	3	2	090	4	5
09	065	20	10	BKN	30.00	75	70	6	2000	CU	82	095	3	2	090	4	5
10	070	16	10	SCT	29.99	76	70	3	2000	CU	82	065	3	1	065	4	3
11	070	16	10	SCT	29.99	75	69	3	2000	CU	82	075	3	1	075	4	3
12	050	19	10	SCT	29.99	75	68	2	3500	CI	82	060	3	1	060	4	3
13	070	18	10	SCT	29.98	75	69	2	3500	CI	82	065	3	1	065	4	3
14	050	16	10	SCT	29.96	74	68	3	3500	CI	82	060	3	1	065	4	3
15	035	12	10	SCT	29.96	75	69	7	3500	CI	82	065	3	1	080	4	3
16	032	18	10	SCT	29.96	76	68	7	3500	CI	81	065	3	1	075	4	3
17	048	21	10	SCT	29.97	75	68	6	3500	CI	81	055	3	2	065	4	4
18	065	13	10	SCT	29.99	75	68	6	2000	CU	81	065	3	2	065	4	5
19	055	14	10	SCT	30.01	75	69	6	2000	CU	81	065	3	2	065	4	5
20	056	16	10	SCT	30.02	78	69	7	2000	CU	81	065	3	2	065	4	5
21	060	17	10	SCT	30.03	78	69	7	2000	CU	81	060	3	2	050	4	5
22	053	15	10	SCT	30.04	79	70	7	2000	CU	80	055	3	2	055	4	5
23	032	20	10	SCT	30.02	77	69	4	2000	CU		045	3	2	040	4	4

OPNAV FORM 3144-1 (9-64)
0107-714-4100

DEPARTMENT OF THE NAVY

SHIP WEATHER OBSERVATION SHEET

USS GEORGE EASTMAN YAG-39 DATE (GMT) 27 FEB 19 67

AT/PASSAGE FROM SPECIAL OPS TO PEARL HARBOR

TABLE I

	TIME (GMT)	WINDS ☐ ✓ IF ESTIMATED		VISIBILITY (Miles)	WEATHER (Symbols)	BAROMETER (Inches)	TEMPERATURE (Degrees and tenths)		CLOUDS			SEA WATER TEMP. (Degrees and tenths)	SEA WAVES			SWELL WAVES		
		Direction (True)	Force (Knots)				Dry Bulb	Wet Bulb	Amount (Tenths)	Height	Type		Direction (True)	Period (Seconds)	Height (Feet)	Direction (True)	Period (Seconds)	Height (Feet)
4	00	ϕ62	14	1ϕ	SCT	29.99	76	69	5	2ϕϕ	CU	8ϕ	ϕ45	3	2	ϕ4ϕ	3	4
5	01	ϕ62	11	1ϕ	SCT	29.97	76	69	7	2ϕϕ	CU	8ϕ	ϕ45	3	2	ϕ4ϕ	3	4
6	02	040	10	10	SCT	29.97	76	69	7	2ϕϕ	CU	80	075	3	1	070	3	3
7	03	025	12	10	SCT	29.95	75	71	6	2ϕϕ	CU	80	050	3	1	055	3	3
8	04	015	14	10	SCT	29.98	75	70	6	2ϕϕ	CU	80	055	3	1	060	3	3
9	05	020	22	10	SCT	29.99	75	69	6	2ϕϕ	CU	80	045	3	1	050	3	4
10	06	009	19	10	SCT	29.99	75	69	8	2ϕϕ	CU	80	040	3	1	040	3	4
11	07	050	19	10	SCT	30.00	74	69	7	2ϕϕ	CU	80	055	3	1	055	3	4
12	08	065	16	10	SCT	30.01	72	69	9	2ϕϕ	CU	80	060	3	1	060	3	4
13	09	047	14	10	SCT	30.01	71	69	7	2ϕϕ	CU	80	060	3	1	060	3	3
1	10	014	14	10	SCT	30.01	72	69	7	2ϕϕ	CU	80	060	3	1	060	3	3
2	11	ϕ20	14	10	R	30.01	70	67	7	2ϕϕ	CU	80	060	3	1	070	3	3
3	12	ϕ25	17	10	SCT	30.02	70	67	7	2ϕϕ	CU	80	060	3	2	080	3	3
4	13	ϕ5ϕ	16	10	SCT	30.ϕϕ	70	67	7	2ϕϕ	CU	80	060	3	2	080	3	3
5	14	ϕ3ϕ	21	1ϕ	SCT	29.99	73	67	5	2ϕϕ	CU	81	ϕ5ϕ	3	2	ϕ55	3	5
6	15	ϕ8ϕ	2ϕ	1ϕ	R	29.95	73	67	10	2ϕϕ	CU	81	ϕ5ϕ	3	2	ϕ55	3	5
7	16	ϕ48	20	10	R	29.98	72	69	10	2ϕϕ	CU	81	6ϕ	3	2	ϕ55	3	5
8	17	ϕϕϕ	20	10	BKN	29.99	73	68	7	2000	CU	81	ϕ5ϕ	3	2	ϕ55	3	5
9	18	043	20	7	R	30.02	76	69	10	2ϕϕ	CU	81	050	3	3	045	4	6
10	19	030	21	8	OVC	30.03	72	69	10	2ϕϕ	CU	80	050	3	3	050	4	6
11	20	045	26	9	OVC	30.05	75	70	9	2ϕϕ	CU	80	055	3	3	045	4	7
12	21	070	30	9	OVC	30.06	75	70	9	2ϕϕ	CU	80	055	3	3	050	4	8
1	22	051	27	9	OVC	30.05	73	69	9	2ϕϕ	CU	80	060	3	3	055	4	8
2	23	050	24	9	OVC	30.05	73	68	9	2ϕϕ	CU	80	055	3	3	050	4	7

OPNAV FORM 3145-1 (9-64)
S/N 0107-703-4100

DEPARTMENT OF THE NAVY

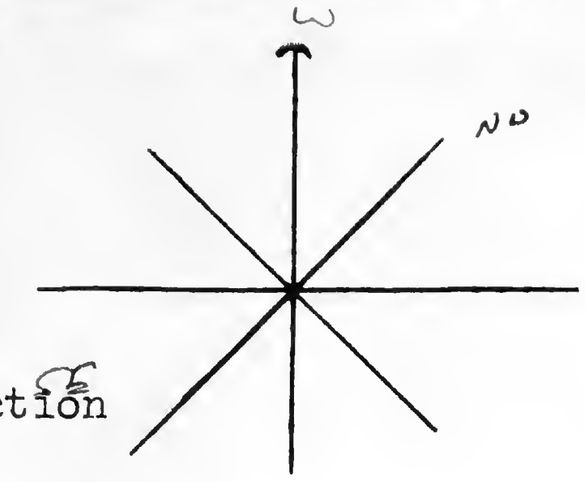
SHIP WEATHER OBSERVATION SHEET

USS GEORGE EASTMAN (AG-39) DATE (GMT) 23 FEBRUARY 19 67

AT/PASSAGE FROM Special Ops TO PEARL HARBOR

TABLE I

TIME (GMT)	WINDS (✓ IF ESTIMATED)		VISIBILITY (Miles)	WEATHER (Symbols)	BAROMETER (Inches)	TEMPERATURE (Degrees and tenths)		CLOUDS			SEA WATER TEMP (Degrees and tenths)	SEA WAVES			SWELL WAVES		
	Direction (True)	Force (Knots)				Dry Bulb	Wet Bulb	Amount (Tenths)	Height	Type		Direction (True)	Period (Seconds)	Height (Feet)	Direction (True)	Period (Seconds)	Height (Feet)
00	M6	29	10	SCT	30.03	74	68	8	2000	CU	82	060	3	3	050	4	7
01	060	34	10	SCT	30.01	74	67	9	2000	CU	82	065	3	3	055	4	7
02	060	34	10	SCT	30.00	74	67	7	2000	CU	82	065	3	3	055	4	8-9
03	050	34	10	SCT	30.02	74	67	7	2000	CU	82	060	3	3	055	4	8-9
04	037	31	10	SCT	30.02	72	67	9	2000	CU	80	037	3	4	055	4	8-9
05	037	31	10	SCT	30.00	72	67	7	2000	CU	80	037	3	4	050	4	8-9
06	041	33	10	BKN	30.04	74	66	9	2000	CU	80	045	3	4	050	4	8
07	045	27	10	BKN	30.04	72	66	9	2000	CU	80	045	3	4	050	4	8
08	040	27	10	SCT	30.07	72	66	6	2000	CU	80	045	3	5	050	4	9
09	038	20	10	SCT	30.08	73	68	7	2000	CU	80	045	3	4	050	4	8
10	035	21	10	BKN	30.07	73	67	6	2000	CU	80	045	3	4	040	4	8
11	045	23	10	BKN	30.07	74	68	5	2000	CU	80	045	3	4	040	4	8
12	045	21	10	BKN	30.05	73	68	5	2000	CU	80	050	3	4	045	4	8
13	052	20	10	OVC	30.04	74	67	9	2000	CU	80	050	3	4	045	4	9
14	060	20	10	OVC	30.03	73	67	10	2000	CU	80	050	3	4	045	4	9
15	060	20	10	OVC	30.03	72	65	10	2000	CU	80	057	3	4	045	4	9
16	060	24	10	BKN	30.03	73	66	7	2000	CU	80	060	3	4	045	4	9
17	060	23	10	BKN	30.05	72	65	5	2000	CU	80	060	3	4	050	4	9
18	037	21	10	BKN	30.08	72	65	7	2000	CU	80	037	3	4	075	4	8
19	059	22	10	BKN	30.10	73	65	7	2000	CU	82	059	3	4	060	4	8-9
20	065	24	10	BKN	30.11	74	65	7	2000	CU	80	065	3	5	060	4	8-9
21	060	24	10	BKN	30.12	74	65	6	2000	CU	82	060	3	5	060	4	8-9
22	070	30	10	BKN	30.10	75	65	9	2000	CU	80	055	3	5	060	4	10
23	065	32	10	BKN	30.06	75	67	10	2000	CU	80	060	3	5	065	4	10



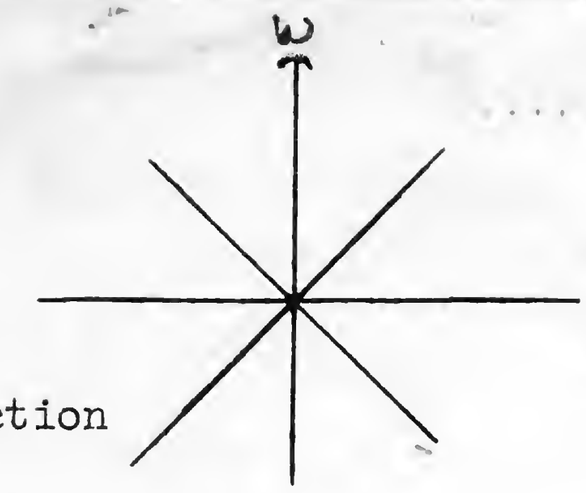
Ship Direction E

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS: DeLong, Fitch, Schreiber

Date 15 Feb 1967
Pg.# 1

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0800					clear of Pearl Harbor
0815	BFA Albat.		2		following ship — However can't see there is so Boobies may have something to do with this mind.
0825	RF Booby Pom		1		Ad. following
0840	Jaeger				
0855	Pom Jae.		2	W	
			1	888	— Ad. — light Phase following
0905	Pom-Jae.	1			
0910	Pom. Jae.	3			2 adults light phase, 1 immature
0916	Pom. Jae.	2			2 adults light phase
0938	BFA	1			adult following ship
0941	Pom. Jae.	3			2 adults feeding on H_2O, 1 immature
0956	BFA	1			1 immature following LT — Total 4
1007	Pomarine Jae ~~4~~ 3				1 adult, 1 imm.
1010	G-B Tern		N		15 ~~following~~ ~~ship~~ eating garbage (Ideal Noddy bird Ad.)
1020	RF-Booby	1			Ad.
		1		888	Ad.
FF 1130	Sterna sp.	100±20			Feeding, traveling & feeding again. Long way out.
	RF Booby	1			
1345	Tropicbird sp.	1	NW		on horizon
1350	LORSP	1	W		
TF 1356	Sooty Terns	6	N		traveling flock well dispersed and flying fast - all adults and unstreamered
1405					Rain squall commenced
1415					Rain squall ended
FF 1422	Sooty Tern	80±10	S		} flock alternately traveling and feeding
	Fairy Tern	4	S		
TF 1438	Sterna sp. [redacted]	7	N		traveling flock well dispersed — flying fast on horizon
1503	G-B Tern	2	N		adults



Ship Direction

OBSERVERS:

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

Date 15 February 1967
Pg.# 2

	TIME	SPECIES	#	SPECIMEN or DIR.	BAND NO.	REMARKS
	1509	6-B. Tern	1	NW		adult
FF	1515	Sterna sp.	11	⊙		feeding flock on horizon- moved off to South as ship approached
	1521	G.B. Tern	1	N		adult
	1527	G.B. Tern	2	NW		adult
FF	1535	Sterna Sp	5			
		Sooty tern	9			
		Fairy tern	2			
		G-B Tern	1			
	1542	W-R S P	1		888	
FF	1545	Sterna Sp	35 ± 5			
	1550	Sterna sp	2	SE		
	1610	RTTB	1		888	
	1625	Pom Jaeger	1	E		
TF	1635	Sooty Tern	9	W		
	1640	WR S P	1		888	
TF	1658	Sooty Tern	11	NNW		traveling flock — adults
	1705	G-B Tern	1	NW		
	1715	Brown Booby	1	888		ad.
	1720	Sterna Sp.	1	888		Dark back, Elliot belly — no more seen
	1748	Sooty Tern	1	NNW		adult
	1835					Sunset

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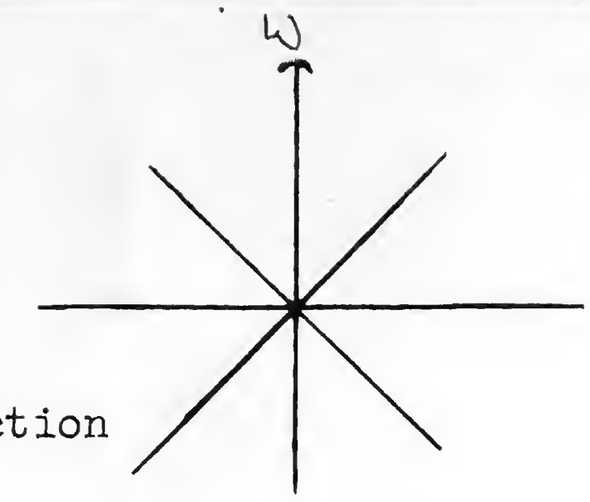
Rev. 5-66



Ship Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:
Sunrise - 0900 Belong
0900 - 1100 Fitch
1100 - 1300 Belong

Date 16 Feb 1967
Pg.# 1

	TIME	SPECIES	#	SPECIMEN or DIR.	BAND NO.	REMARKS
	0714					Sun rise - begin obs.
	0735	WTTB	1	NE		
	0800	Shear-pet	~~RFB~~ 2	NW		
	0804	Sooty tern	3	SSW		Searching & feeding
FF	0909	Sooty Terns	100 ± 10			a swirling feeding flock - moved off to NNW after being disturbed by ship.
		Fairy Tern	3			
		RFB	3			
		Shear/Pet.	2			
	0925	RFB	1	E		
FF	1019	Sooty Tern	7			Swirling feeding flock on horizon - moved slowly off to SW
		Frigate sp.	1			
		RFB	2			
	1051	Tropicbird sp.	1	S		on horizon - probably WTTB
	1110	G. Frigate.	1			
	1112	RFB	3			adults
	1200	Sooty tern	3	N		
	1315	BFA	1	SSE		immature
	1410	Shear/pet.	1	NW		flying fast on horizon.
	1498	G. Frigate	1	S		
	1441	RFB	1	E		adult
	1532	WTTB	1			~~Settled~~ circling ship
F	1630	Sooty tern	8			Searching.
	1750	Phoenix/ Tahaitian Petrel	1	SSW		Dark cap, mask, back & mantle, white belly & underwings with narrow black border. Dark crissum.
	1802	Phoenix/Fah. Pet	1	SSW		
	1818	WTTB	1			Following ship
	1853					Sunset

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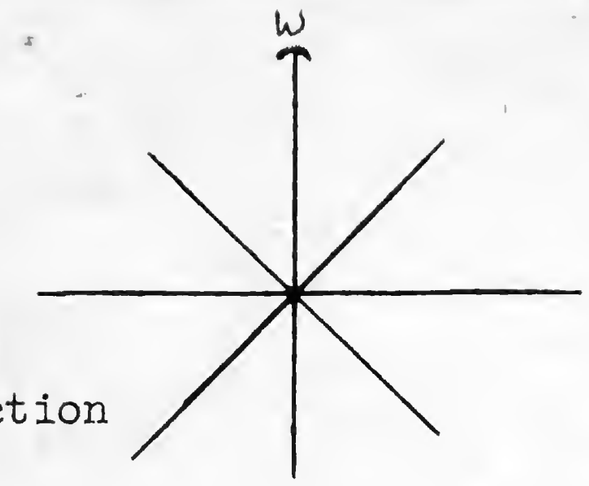
Rev. 5-66



Ship Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:
0724 - 0930 Fitch
0930 - 1130 Delong
11:30 - 13:30 Fitch
13:30 - 15:30 Delong
15:30 - 17:30 Fitch
17:30 - Sunset Delong

Date 17 Feb. 1967
Pg.# 1

	TIME	SPECIES	#	SPECIMEN or DIR.	BAND NO.	REMARKS
	0724					Sunrise
	0834	WTTB	1	◎		following ship
	0839	Phoenix/Tahitian Petrel	1	SE		upper surface dark brown to black, dark breast band on whitish breast, under wings black to dark brown
FF	1020	Sooty tern	50±10	ccw		Feeding then swirling high into the air.
F	1038	Sooty tern	10	888		Searching
	1252	RFB	1	E		immature
	1615	Phoenix/Tahitian Petrel	1	SW		
	1657	RFB	1	◎		adult
FF	1740	Sooty tern	36	888		Feeding & swirling high & feeding gull
	1810	RFB	2	888		1 Ad; 1 imm
	1847	"	1	888		1 imm.
	1910					55 close obs

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Rev. 5-66

Record
PM
18 Feb

{1 More RFB
{1 Ptsmouth
above yesterday

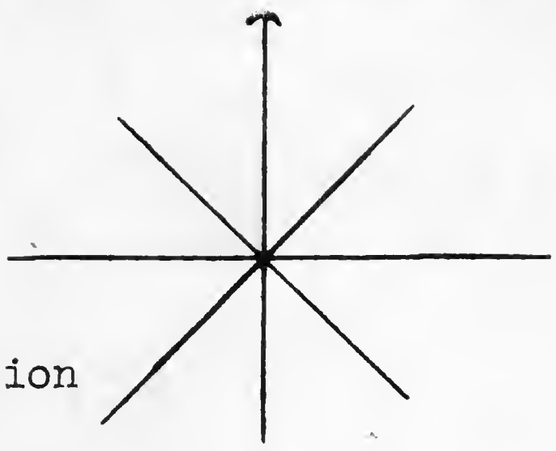
18 Feb

0800 - 1000

0808 - HF - 1 -
0825 - RFB - 1 - NW
0846 - Ptsmouth - 1 -
0910 WRSR - 1 - NW
0857 RFB - 1 - NW
0913 HF - 1 - Feeding line
0925 RFB - 1 - NW
0930 " - 2 - NE - 1 Rd line
0940 " - 1 - NE - 5 Rd
0951 Bird sp - 1 - 268
0958 " - 1 - "

1600-1700

1614 - RTTB non local
1618 - HF - 1 - NO Pur
1646 - RFB - 1 NE line



Ship Direction

Denmark
Northern

Northern grid - ~~Denmark~~ I

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

Date 18 February 1967
Pg.# 1

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS

Forth 3 G.F
9 RFB
2 WRSP
2 Bird Sp.
1 Phaeton/tail Red
1 RTTB

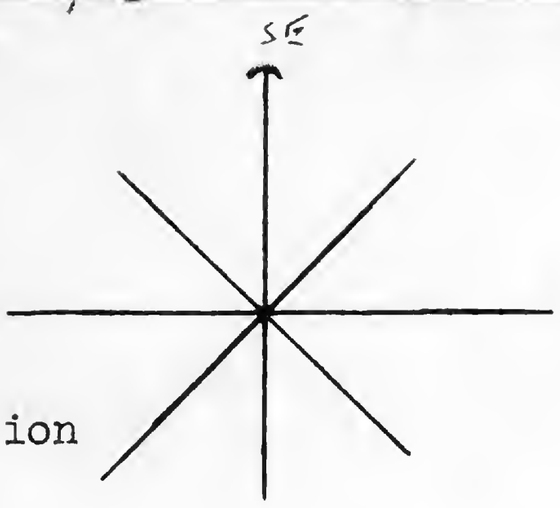
LT totals
for 0800-1000
1400-1800

Passed pm
18 =

~~0810~~ - 0800-1000

LT	
2 Gr Frig	2 Gr. Frigate
5 RFB	1 RFB
	1 Pteredroma
1 WRSP	1 WRSP
2 Bird Sp	1 Bird sp
	1 AG

Summary of LT Watch



Ship Direction

NORTHERN GRID, DURNAL
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

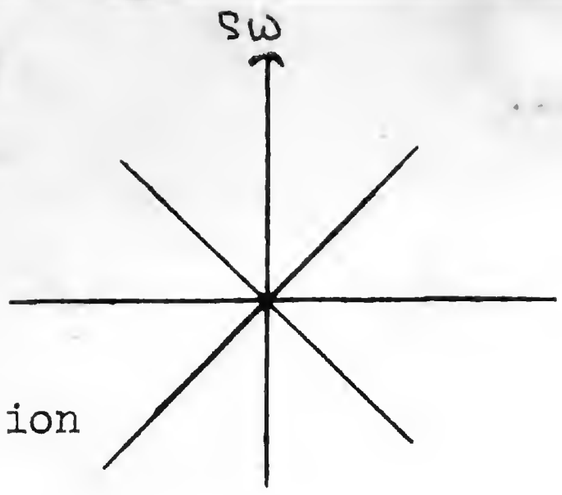
Date 18 FEBRUARY 1967
Pg.# 1

	TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
	0637					S.R. begin obs.
	0824	Bird sp.	1			Probable Pterodroma but out on horizon and unable to tell; if Pterodroma it is one of the small ones.
	0854	WHITE-RUMPED STORM PETREL	1	~~~		
	0854	RFB	1	~~~		Ad
	0955	? Pterodroma	1	~~~		WHITE BELOW, TRAILING EDGES OF UNDERWINGS DARK, ↓ WINGS & BODY DARK BROWN ABOVE, SMALLER THAN RFB, ABOUT WTS SIZE BUT LIGHTER COLORED
	1000	GR. FRIGATE ~~SD~~	2	@		
FF	1012	SOOTY TERN	30±5	@		FEEDING FLOCK WHEN FIRST SEEN, THEN MOVE HIGHER + AWAY FROM SHIP TOWARD SOUTH
FF	1030	SOOTY TERN	100±10			FEEDING FLOCK - MOVE UP AND AWAY FROM THE SHIP
FF	1030	RFB	3			imm among SOOTIES - COME TOWARD & FLY AROUND THE SHIP
FF	1030	GF	1			SOAR ABOVE SOOTIES "LOOK US OVER" imm.
	1112	P. externa cervicalis	1	SE		see well
	1130	RFB				2 imm - probably same as above
	1131	RFB	1			Sub Ad.
	1132	G. Frigate	1			light on edge of gull
	1133	Sooty tern	2	SE		
FF	1135	" "	7	SSE		Feeding All Adult -
FF	1140	Sooty tern	50 ±	S		
		Great Frigate				Same as above
		RFB				Same as above
	1200	Sooty tern	2	SW		
FF	1205					
	1227	RFB	1			LT chasing - ob tainted
						Ad - over ship
	1400	WTTB	1	@		Ad calling over ship
	1615	FRIGATE SP.	1	~~~		circling + dive down toward water, THEN UP HIGH AGAIN
Dup	1630	Pterodroma SP.	1	~~~		BROWN ABOVE - LIGHT BELOW
	1810	WTTB.	2	~~~		imm } over ship
		RFB	1	~~		
	1820	RFB	1	~~~		subad

Sooty tern 35
RFB 1 - SAd

1400-1600 ob. for LT

1825 - STOP OBSERVATIONS



OBSERVERS:

Fitch

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

Date 18 Feb. 1967
Pg.# 1

SPECIMEN or DIURNAL GRID LT 2087

	TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
	0800					commence watch
	0808	G. Frigate	1	◎		
	0825	RFB	1	NW		
	0846	Pterodroma sp.	1	◎		possibly TFP
	0857	RFB	1	NW		adult
	0910	WRSP	1	NW		
	0913	G. Frigate	1	◎		female possibly subadult or immature because of mottled brown and white apearance of breast feathers - feeding when first approached, individual was flying at approx. 100ft. and would swoop down, barely touching surface of water to catch flying fish - from a distance, resembled feeding behavior of WTTB except that frigate never dived into H_2O - after being disturbed by ship, it flew off to NW.
	0925	RFB	1	NW		adult flying just above H_2O
	0930	RFB	2	NE		1 adult, 1 immature (immature following adult - flying from 3 to 7 ft. above H_2O).
	0940	RFB	1	NE		subadult
	0951	Bird sp.	1	◎		on horizon - moved off out of sight
	0958	Bird sp.	1	◎		" " "
	1000					Close watch
CC	1314	BFB	1	◎		subadult following ship - # 110057
	1400					Commence watch
	1432	RFB	1	NE		adult
	1449	Phoenia Isl/ Tahitian	1	NE		
	1450	RFB	1	◎		subadult - observed chasing flying fish
CC	1505	RFB	1	◎		subadult # 110058
	1614	RTTB	1	◎		sitting on H_2O
	1618	G. Frigate	1	◎		
	1620					Close watch for dinner
	1640					Open watch
	1646	RFB	1	NE		immature
	1735	WRSP	1	◎		
	1745					Along side AG - 39
	1800					Close watch

Entered into ADP System.

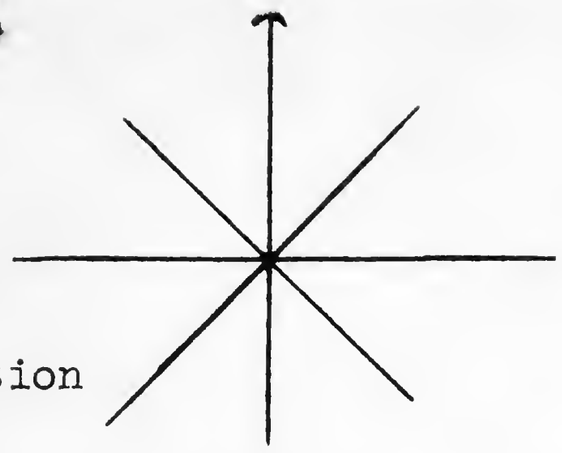
~~28 Feb~~ OBSERVERS:

Sch. 2000-2400

Fitch 2400-0401

~~Debey~~ 0400-0801

Ship Direction



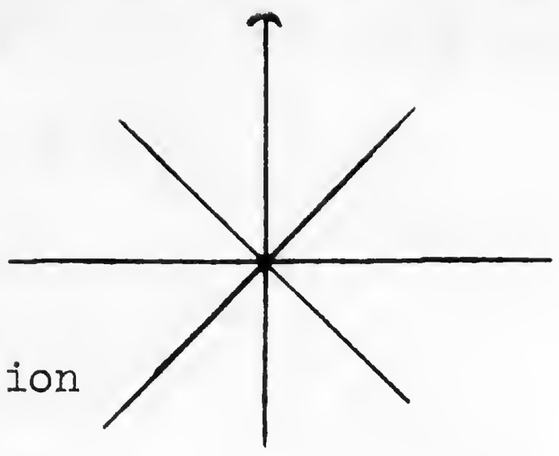
Nocturnal Bird

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

End of First leg 50.5' 3 hrs.
Second leg.

Date 18-19 Feb.
Pg.# 1

TIME	SPECIES	#	DIR.	SPECIMEN or BAND NO.	REMARKS
2130	WTTD	1	S		CALL OVER SHIP
2145	RFB	1			imm fly by
2300	ST	3			fly overhead - wide-awake
2400	04 re				Fitchburg
0615	M. Frigate	1			
0630	Pterodroma sp.	1	SE		
0645	Birds sp.	1			
0647					Sunrise End Nocturnal.



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

Fitch

18-19 Feb 67
Date 19 Feb. 1967
Pg.#

SPECIMEN or NOCTURNAL GRID LT 2087

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
2400					Begin watch
0324					direction change to 310°
0400					Close watch

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Pond
19 Feb.

Observing conditions
on Tuq Pond poor due to moderately
rough seas. So much motion J. Field
was unable to use binos. for scanning
comparison made with this in mind.

19 Feb

Wind Boobies !

0800 - 1000

P 0811 - RFB - 1 —
P 0837 - " - 3 — NE SAP
S 0856 - " - 4 — — SAD
P. 0907 " 1 — —
9932 - Rain began
P-S 0938 - ~~P. F Rob~~ + (Juan Fernandez Petrel)
P-S 0944 P. rostrata/alba - 1 — (Phaeton/tahiti Pet)

19 Feb

LT - Fitch

hypoleuca m.

P. ~~[illegible]~~ - 1 - B-w Pet

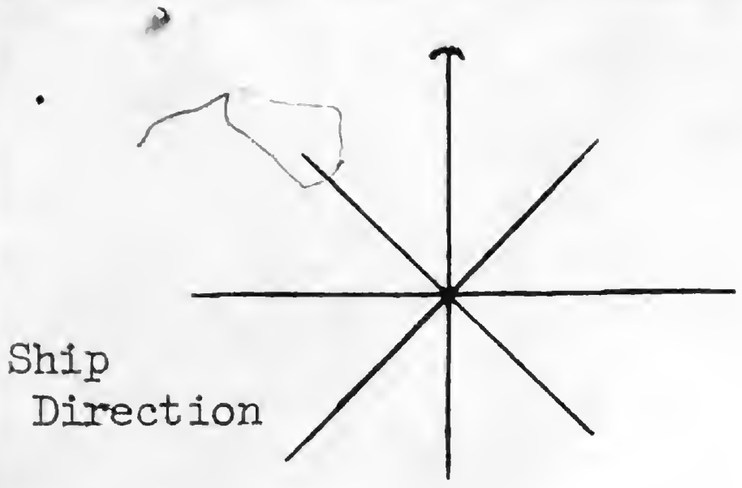
Phaenicia - 1

1400-1600

~~1600-1800~~

GF - 1

RFB - 1



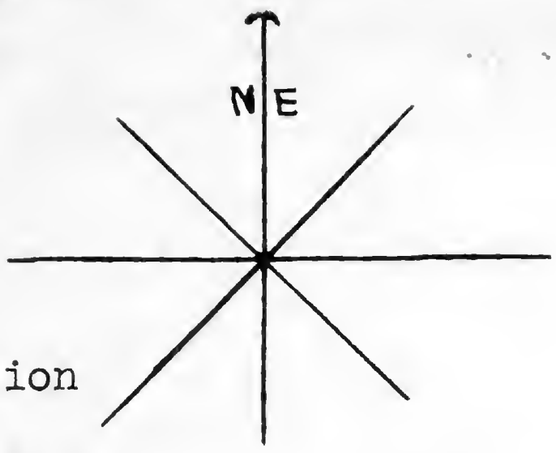
OBSERVERS:

Diurnal Hist YAG 39

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

Date 19 February 1967
Pg.# 1

	TIME	SPECIES	#	SPECIMEN or DIR.	BAND NO.	REMARKS
	0647					S.R. Begin
	0658	WTTB	1	E		
	0710	RF Booby	1	888		Immature
	0715	RF Booby	1			
		MF Frigate	1			Immature — feeding Adj Parasitizing the above booby. followed it and circled on it once. Were observed for 10 min
	0800					turned N. on second leg.
	0810	WRSP	1	F888		
P	0815	PHEONIX/TH PETREL	1	E		TRAVEL EAST
A.P	0840	RFB	4			1 imm
	0850	RFB	1			imm, probably one of above
S	0900	RFB	1			1 imm
P	0940	PHEO/TH PETREL	1			
P	0957	WTTB	1	-W		adl
	1028	Bird sp.	1	?		stayed for short time!
	1145	BFA	1	88		
	1215	WTTB	1			over TUC
	1230	Bird sp	1	Stb		
	1235	G.F.	1			imm - high above ship
	1645	BIRD SP.	1			1400-1600 Fitch from LT
	1755	BFB	1			SUBAD - FOLLOW SHIP - P+R black, COVERTS WHITE & BLACK MOTTLING, HEAVY IN BACK, HEAD + BREAST, BELLY WHITE, NO MOTTLING.
	1810	RFB	2			Adj imm
	1828	~~Bird sp~~	1			SS close Dimmels.



Ship Direction

OBSERVERS:

Fitch

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

Date 19 Feb. 1967

Pg.# 1

SPECIMEN or DIURNAL GRID LT 2087

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0800					Commence watch
0811	RFB	1	◎		● starboard of LT
0837	RFB	3	NE		subadults starboard LT
0856	RFB	4	◎		subadults port LT
0907	RFB	1	◎		port LT
0932					Rain squalls began
0938	Pterodroma (large)	1	◎		probably JFP: gray w dark W across back, white undersurface, underwings: linings white, black spot at wrist, dark patch around eye - (did not have white nape of WNP)
0944	Phoenix Isl./ Tahitian Petrel	1	◎		dark brown upper surface, dark breast band on white breast
0945					Rain squall ended
1000					Close watch
1400					
1422	Pterodroma [redacted] (small)	2	◎		Commence possibly BWP - upper parts gray, white under parts including coverts, inverted "W" across wings, [redacted] underwing white w thick dark edge - did not appear to have dark gray cap as in WBP
1423					
1428					Rain squall begin
1428					Rain squall ended
1428	RFB	1	◎		subadult
1435	Phoenix Isl./ Tahitian	1	◎		
1503	G. Frigate	1			
1600					Close watch
1800					Commence watch
1828	RFB	1	◎		following ship
1913	WRSP	1	◎		
2000					Close watch

Entered into ADP for Mail.

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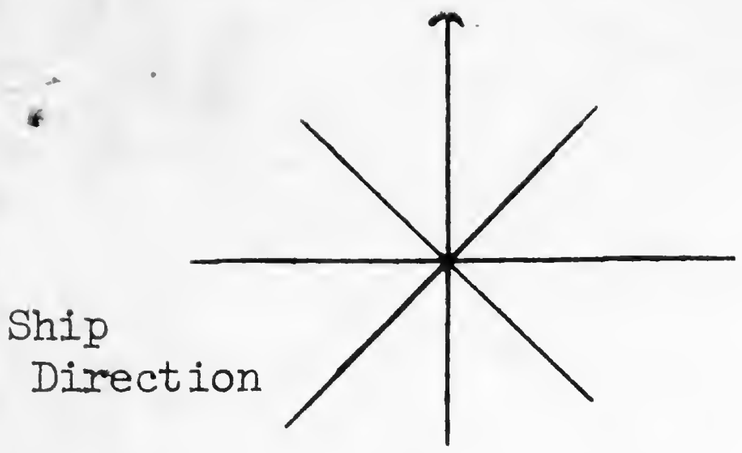


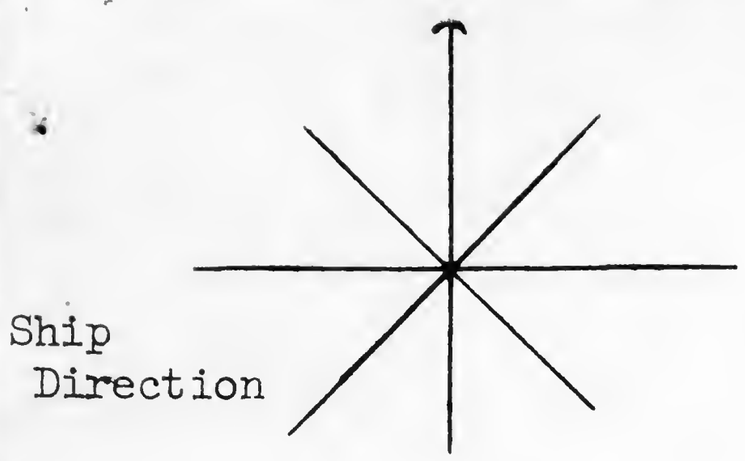
Nocturnal Grid

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:
0000 → 0400 DeLong
0400 → 0641 Schreiber

Date 19-20 Feb. '67
Pg.#

TIME	SPECIES	#	SPECIMEN or DIR.	BAND NO.	REMARKS
1835	Bird sp.	1			
0125	Sooty tern	1			Vocal
0330	Sooty tern	3			"
0641					SUNRISE



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

SPECIMEN Nocturnal Grid
or LT 2087

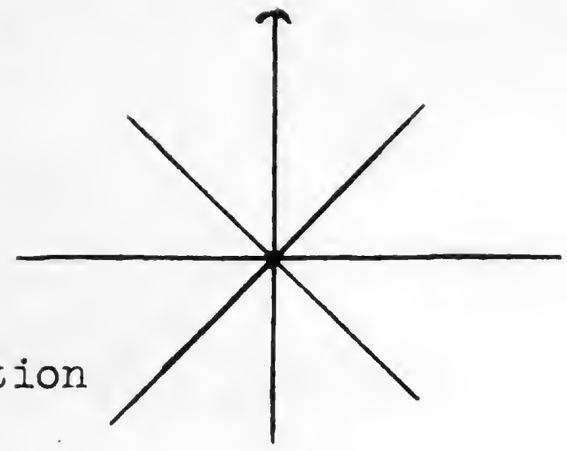
OBSERVERS:
Fitch

19-20 Feb 1967

Date 20 Feb. 1967
Pg.#

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
2400					Begin watch
0210	~~Bird sp.~~	1	◎		large, possibly RFB
0400					Close watch

Ship Direction



Depart Ghirdah 1000
0930

DIURNAL GRID

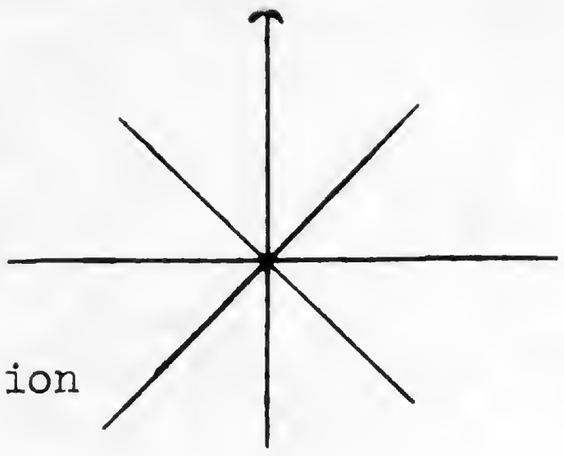
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS: _____

20 Feb Date _____
1 Pg.# _____

	TIME	SPECIES	#	DIR.	SPECIMEN or BAND NO.	REMARKS
	0641					SUNRISE
	0800	WTTB	1	NW		ADULT
	0932	RFB ?	1	NW		Ad - [I THINK JOHN SAW IT]
TF	1045	Sooty tern	5	NE		
	1050	RF Booby	2	S		Ad.
	1055	BF Booby	1	SSW		following - SAL
	1155	RFB Booby	1	SE		imm
	1230	RTTB				following ship
	1244	RFB	2			imm OVER TAKE SHIP TOWARD SI
FF	1324	ST	175±			FEEDING FLOCK
		FT	3			
		RFB	6			3 ad 2 sub 1 imm
	1329	RFB	1			Ad sitting on water
	1600	RFB	1			Ad. — 1400-1600LT - Rifle
	1605	RFB	8			6 Ad, 1 SAd, 1 imm.
	1625	ST Shm.	1	SSW		
FF	1630	Sooty tern	35±10			LT. Rifle
		Mag Frigate	1	NE		
	1810	RFB	2	NW		PAIR OF AD
	1811	RFB	3	NW		2 ad, 1 sub
	1812	RFB	1	NW		imm
	1820	RFB	25	NW		FLOCK MOVING TOWARDS SI
E	1822	SUNSET				STOP OBSERVATIONS

COUNTED 100+ RFB MOSTLY AD. FLYING UPWIND TOWARD SI



Ship
Direction

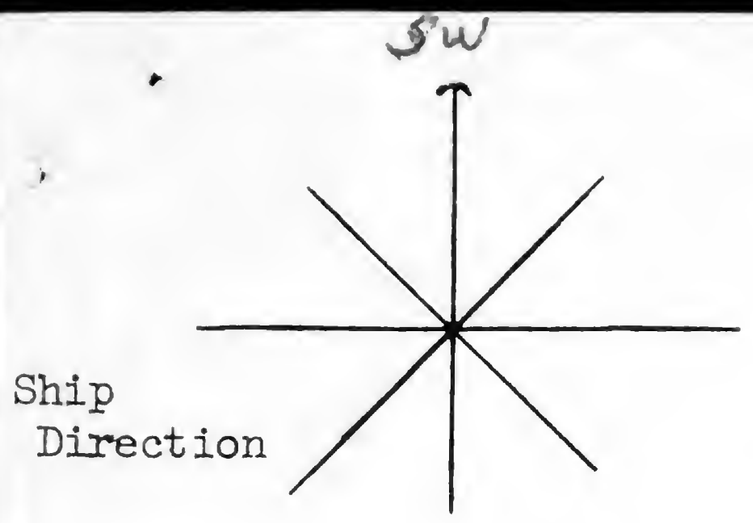
OBSERVERS:
Fitch

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

Date 20 Feb. 1967
Pg.# 1

SPECIMEN DIURNAL GRID
or LT 2087

	TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
	0800					Commence watch - leaving Northern Grid Tract
	0820	RFB	1			following ship
	0842	G. Frigate	1			
	0932	BFB	1			subadult
	0937	Bird sp.	1			
	0943	Bird sp.	1	SW		probably Tropicbird Sp.
	0958	RFB	1			adult
cc	1355	WTTB	1			collected #110059, blood sample taken
	1420	RFB	1	SW		
	1426	WRSP	1			
	1523	Tropicbird Sp.	1			following ship
	1546	WRSP	1			sitting on H_2O
	1600					Close watch



Entered Bird 2213

OBSERVERS:

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

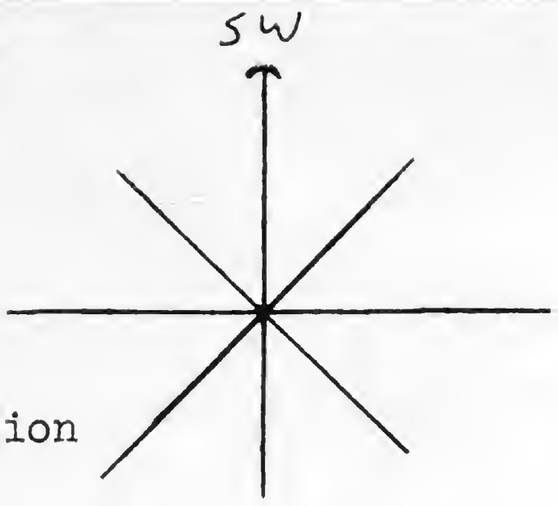
20-21 Feb 1967

Date 20TH FEB

SPECIMEN NOCTURNAL ~~BIRD~~
or

Pg.# 1

	TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
	1822	Sunset				Begin nocturnals
	1915	ST	1			VOCAL
	1935	ST	2			VOCAL
	2036	ST	6	?		Vocalization - heard for 8 min.
	2055	ST	1	?		" " " " 2 min.
	2108	ST	3	?		" " " " 3 min.
	2125	ST	2	?		" " " " 4 min.
	2132	RFB	1			following ship - 2137 landed on ships radar mast - individual immature and unbanded
	2141	ST	4	?		Vocalization - heard for 2 mins.
	2153	ST	2	?		" " " 2 mins
	2159	ST	2	?		" " " 3 min.
	2200	ST	1	?		" " " 2 min.
	2214	ST	3	?		" " " 5 min.
	2227	ST	?	?		" " " 7 min.
	2239	ST	?	?		" " " 10 min.
	2354	ST	?	?		" " " 3 min. Begin Bird
			175±25			
TF	2316	ST	150-200			large flock - total of 78 counted @ top searchlights from 2316 to 2354 - estimated no.: 150-200 - indicated visual observations, Sooty Terns flew in from SW to NE and circled ship several times before flying on
		~~ST~~				
	2317	RFB	1			
	2400	RFB	4			IMM FLYING NE, ONE ATTEMPS TO LAND ON MAST BUT GONES ON, 3-4 SEEN AROUND SHIP FOR NEXT HALF HOUR
	0025	ST				FLOCK SEEMS TO HAVE LEFT THE SHIP - BUT BIRDS STILL PRESENT, IN FEWER NUMBERS, PAIRS SEEM PREVALENT
	↓					
	0045	ST				ONLY 1-2 INDIVIDUALS REMAIN - IS THIS FLOCK MOVING BY SHIP OR STAYING WITH US?
	0050	RFB	3			AD - FLYING NE
	0057	RFB	11			AD FLOCK, FLEW BY CLOSE IN TO SHIP NEAR LIGHTS, THAN CONTINUE NE
	0059	ST				EST. ONLY 5-10 AROUND SHIP, FURTHER AWAY, IN PAIRS + ALONE
	0130	RFB				INDIVIDUALS AROUND SHIP - ARE THEY THE SAME?



Ship Direction

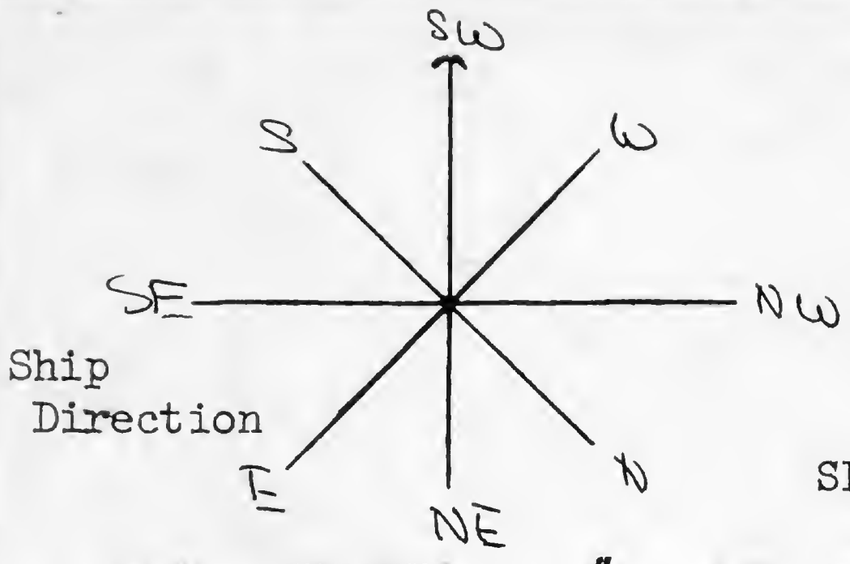
NOCTURNAL

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

Date 20TH FEB
Pg.# II

TIME	SPECIES	SPECIMEN #	DIR.	BAND NO.	REMARKS
0135	RFBooby	1			SUBAD near MAST, THAN CONTINUES NE
0137	ST	50-100			#'s INCREASED AGAIN, EST 50-100, STATIONARY OVER BOW OF SHIP & MOVING OFF TO SIDES + TOWARD STERN
0210	ST				#'s DOWN TO 4-6 OFF BOW OF SHIP
0250	RFB				ANOTHER SUBAD LANDED ON MAST - AFTER DISPLACING EARLIER ONE WHICH MOVED TO FORWARD MAST, THEN BACK TO MAIN
	ST				SINCE 0215 EST. 15-~~#~~50 AROUND SHIP - BOTH FORWARD + TO SIDES.
0345	ST				GRADUAL DECREASE IN #'s LAST HOUR, QUITE NOTICEABLE IN LAST 10 MIN TO ONLY 2-3 BIRDS HEARD NEAR SHIP
0415	ST				INTERMITTANT OVER + AROUND + AWAY FROM SHIP, MORE AWAY THAN NEAR
0425	sooty tern	1			
0530	Sooty tern	1			
0647					S.R. Clune obs.



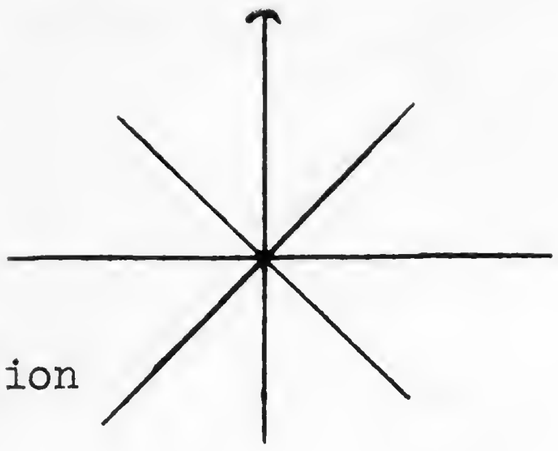
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

SPECIMEN DIURNAL - Grid
or

OBSERVERS:
DeLong 0647-0800
Fitch 0800-1000
Schreiber 1000-1200

Date 21 Feb '67
Pg.# 1

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0647					SR beg in Obs.
0716	RF Booby	1			
0740	Br. Booby		SSE		Imm
0759	RTTB	1	SSE		Ad.
0800		1	SSE		Above ship
0807	WRSP	1	NW		course 228
0814	BB.	1	S		adult
0845	RTTB	1	NW		flying low feeding
0855	BFB	1			
0856	Phoenix Isl./ Tahitian Petrel	1			
0927	BB	1	SW		adult
1055	RTTB	1	SW		Ad, overship, from S then continues SWest, stays near ship, low on water, lands twice in next 10 min
1725	WTTB	1	SW		AD, CIRCLE OVER SHIP
1745	RFB	1			subAd (?)
1838					Sun Set.



Ship
Direction

OBSERVERS:

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

Date 21-22 Feb

Pg.# 1

SPECIMEN Nocturnal
or Mist

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1838					begin Nocturnals
0644					end Nocturnals

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Ship Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

Date 22 Feb 1967
Pg.#

SPECIMEN or DIURNALGRID

	TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
	0645					Sunrise – commence watch
	0726	WRSP	1			
	0758	Tropicbird sp.	1			seen on horizon
	0820	CI Shear	1	SW		
PF	0907	Sooty Tern	15			
		Pterodroma	2			1 Phoenix/Hoyt Pet (Dark black, white bellys with white underwings bordered on trailing by narrow black. Fine Pattern behind eye [redacted]. Another that was much more mellainsha. With with black borders on the underwing, more black about face.
		RF Booby	1			
	1030	BIRD SP.	1			
	1042	RFB	1			IMM
FF	1055	ST	~~25±10~~ 85±10			FEEDING FLOCK, NO OTHER BIRDS SEEN
	1110	~~PROVIDENCE~~ JUAN FARNENDES PETREL?	1			DARK BROWN ABOVE, WHITE BELOW, TIPS OF WINGS UNDERNEITH DARK
	1210	RF Booby	1			SAd
	1245	RF Booby	1			turned S on 5th leg.
	1340					Imm
	1341	UTTB	1	SW		Ad.
	1418	RFB	4			
	1450	RFB	1	W		3 imm; 1 SAd
	1555	Gr. Frigate				following – Ad.
	1556	RFB	1	SW		
			1			high above water – scouting?
						Imm Sooty/Hall C Booby under frigate.
						Booby dived once beside a porpoising Mahimahi

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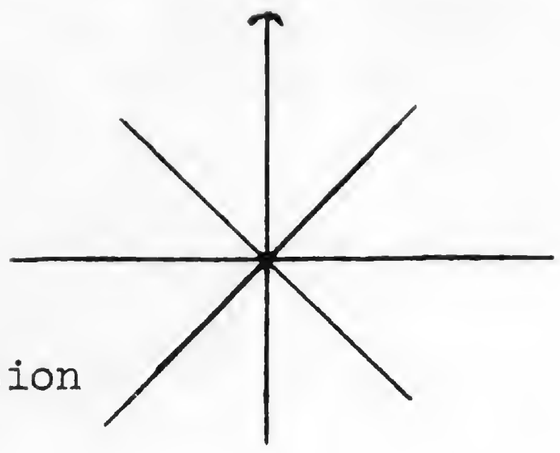
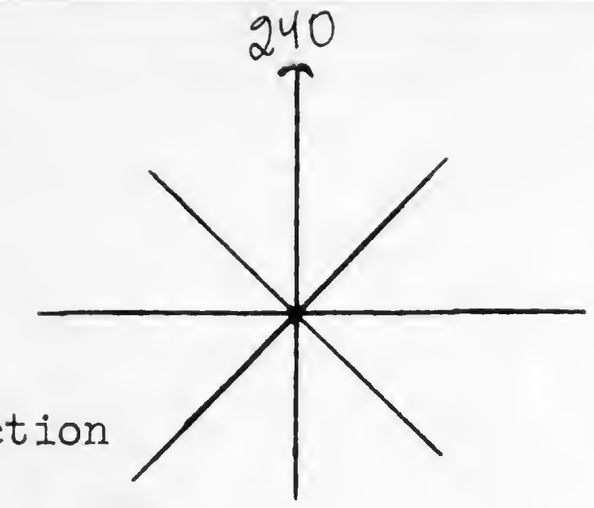


OBSERVERS:

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

22 Feb Date 22 Feb.
Pg.#

TIME	SPECIES	#	SPECIMEN or DIR.	BAND NO.	REMARKS
1655	GF Frig.	1	SW	Mole	– observed searching aid rear & dive three times & feed once. Observation Duration 30 min.
✓ 1723	RFB	3	◎		subadults
1738	RFB	2	◎		1 adult, 1 subadult: followed ship for 5 min., [redacted] then both landed on the water
1744	RFB	1	◎		subadult following ship [redacted]
1819	BFB	1	N		Subadult
1834	—				SS – close diurnal obs



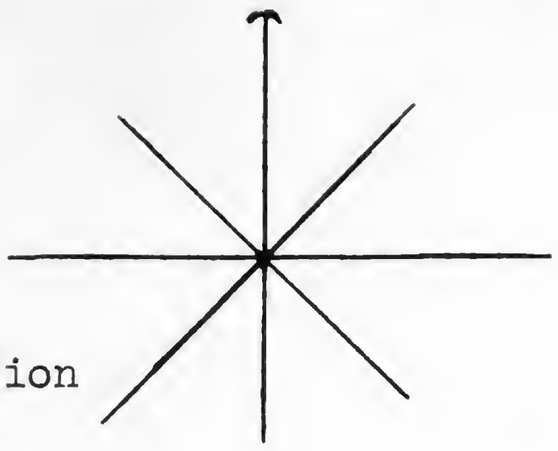
Ship Direction

NOCTURNAL GRID
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

Date 22-23 Feb
Pg.# 1

TIME	SPECIES	#	DIR.	SPECIMEN or BAND NO.	REMARKS
1835					SUNSET
1836	RFB	1			imm, same as earlier
2000					LANDED ON AFTER MAST
2200 —	2400				GREEN, SLEEP
					No Activity
0545					COURSE CHANGE TO 045°
					WHEN CHANGE RFB ON AFTER MAST - TURNED AROUND SO FACE WIND AGAIN — WIND FROM 095°
0654	SUNRISE				
0730	FRIG. SP.	2			FEEDING LOW ON WATER, CLOSE TOGETHER, SOME CHASE

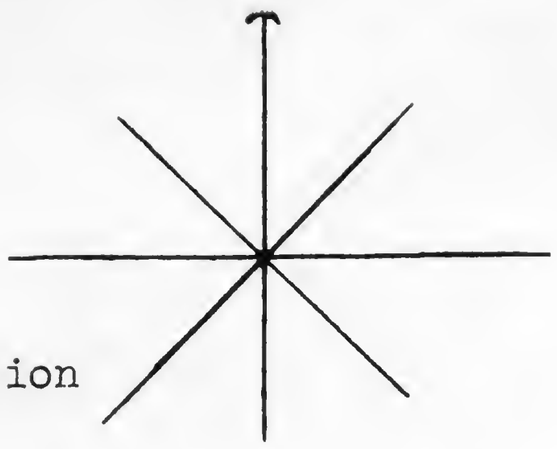


OBSERVERS:

DIURNAL GRID
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

Date 23 Feb '67
Pg.# 1

TIME	SPECIES	#	SPECIMEN or DIR.	BAND NO.	REMARKS
0655	SUNRISE				BEGIN OBSERVATIONS
0730	GF FRIG.	2	♂		feeding pair ♂ – ♀
0745	GF	1	♂		♂ low on water
0800					CHANGE COURSE TO 055°
0800	RFB				LEFT AFTER-MAST, AWOKE AT 0707 + SPENT ALMOST AN HOUR PREENING & LOOKING AROUND.
1017	M. Frigate	1			
1044	WRSP	1			high above water
1550	M. Frig.	1			Ad ♀
1758	WRSP	1			
1835					55 – c/ourse diurnal



Ship Direction

Nocturnal Grid.

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

Out of GRID at 2235

OBSERVERS:

Date 23-24 Feb '67

Pg.#

TIME	SPECIES	#	SPECIMEN or DIR.	BAND NO.	REMARKS
1831					Sunset
0341	Sooty Tern	1	(e)		vocalization
0710	SUNRISE				

LOST AN HOUR DURING NIGHT.

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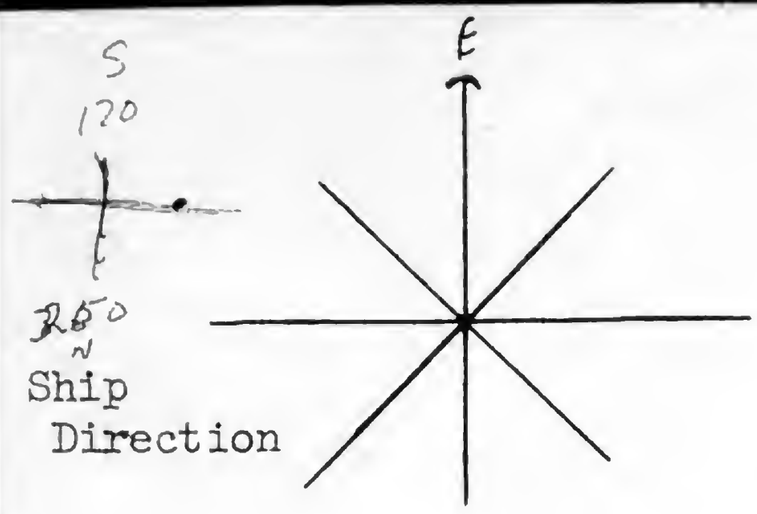

OBSERVERS:

DIURNAL
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

Date 24 FEB 67
Pg.# 1

	TIME	SPECIES	#	SPECIMEN or DIR.	BAND NO.	REMARKS
	0740	SUNRISE				
	0743	RFB	1	NW		imm
	1115	RFB	1			subadult
	~~1252~~ 1152	RFB	1			adult - circling ship
	1220	Mag. Frigate	1			
	1315	RFB	1	SW		Imm
	1320	Mag. Frig	1	NE		
FF	1410	Sooty Tern	35	SW		
	1627	G. Frigate	1			
	1631	RFB	1			immature
FF	1645	Sooty Tern	100 ± 10			feeding flock - moved NE after being disturbed by ship
		Fairy Tern	6			
		BFB	2			
		RFB	4			
	1700					All Stop
	1700	GF	1	E		
	1708	RFB	2	E		sub + imm flying E, low on water
	1710	RFB	3	SE		ad
	1710	Sooty Tern	2	SE		Traveling
✓	1714	RFB	2	NE		TRAVELLING
FF	1735	SOOTY TERN	25			FEEDING FLOCK
		RFB	2			
	1755	RFB	3	SE		1 adult, 2 subadults - traveling
TF	1758	Sooty Tern	18 ± 2	E		traveling flock moving East
	1809	G. Frigate	7	E		
	1810	RFB	6	E		1 adult, 5 immatures
	1835					
	1900	Mag. Frigate	2	SW		under way
	1905	~~Storm~~ Pheloreus sp.	1	SW		Red?
	1920					S.S. End Diurnals

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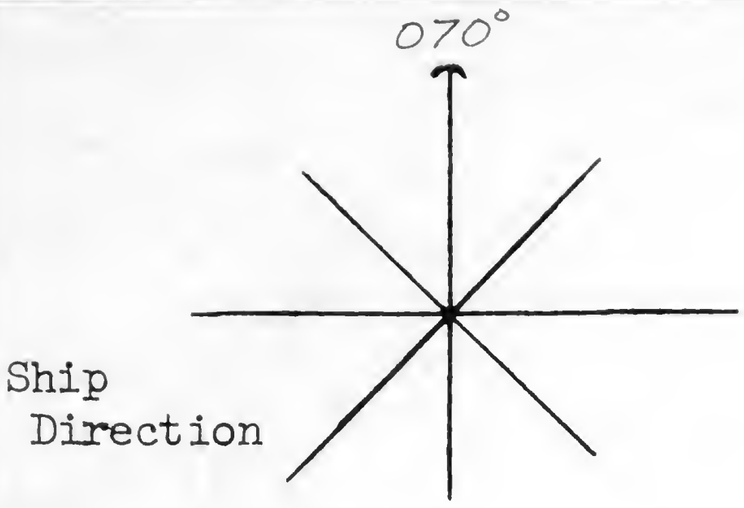
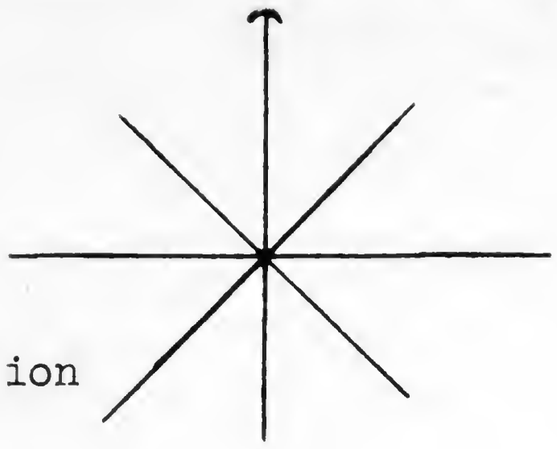


OBSERVERS:

NOCTURNAL
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

Date 24 Feb '67
Pg.# 1

TIME	SPECIES	#	DIR.	BAND NO.	SPECIMEN or REMARKS
2000					BEGIN OBS.
2015	ST	1			flew over the ship - not heard or seen any during next hour
2200					clear
0100					overcast
0245					clear



Ship
Direction

DIURNAL

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

Date 25 Feb '67
Pg.# 1

TIME	SPECIES	#	SPECIMEN or DIR.	BAND NO.	REMARKS
					nothing seen between 0645 and 0733
0733					SUNRISE, BEGIN OBS.
1019	RFB	1	♀	———	adult
1350	RFB	1	—	—	ad
1519	WRST	1	NNR		GOOD LOOK!
1810	BFA	1	NNR		Ad, behind ship
1900					SS clouds.

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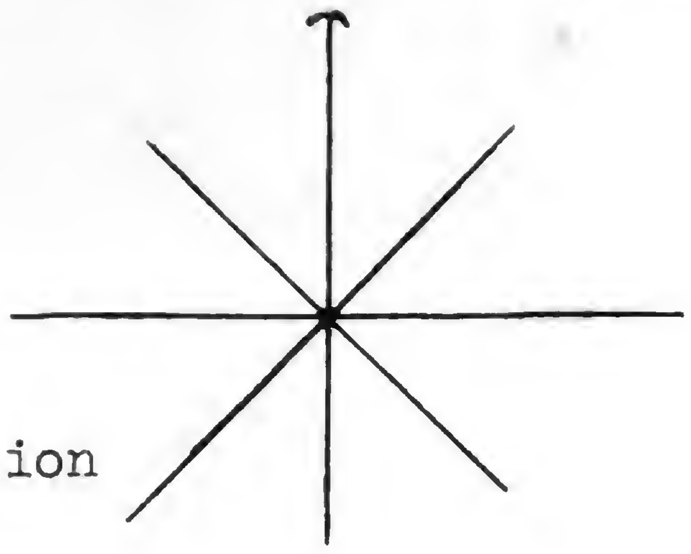
VAG 39.

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

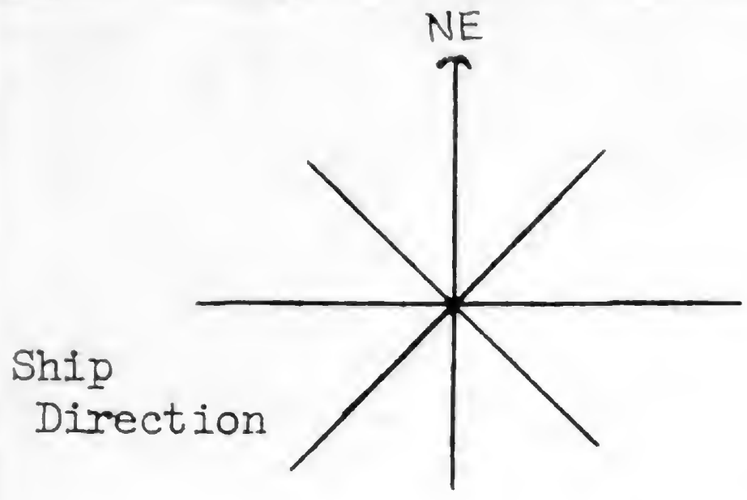
OBSERVERS: SCHREIBER + DeLONG

Ship Direction



Date 26 Feb
Pg.# 1

	TIME	SPECIES	#	DIR.	SPECIMEN or BAND NO.	REMARKS
	0721	RUNSIZE				→ SUNRISE, BEGIN OBS.
	0830	BFA	1	~		Behind ship, [same as last night???] [JUST APPEARED, DID NOT FOLLOW CLOSELY ALL NIGHT IF THE SAME]
	0830	RFB	1			
SF	0855	WRSP	1			ON BOW OF SHIP [LOTS OF GUANO] BLOOD SAMPLE + RELEASE subad.
F SP	0858					whale sp.
SF	0948	Sooty tern	10			Flew from SF to Port
	0950	" "	12			Total of 22±4 in above flock
		Booby sp.	1			it continues to [illegible].
	1100	RFB	1			Imm – flying over ship
FF	1115	ST	15±			OFF PORT BOW,
	1200	BFA	1	~		FOLLOW SHIP
	1232	GREAT FRIG	1	spiral symbol		ADULT, MALE, VERY CLOSE, ABOVE SHIP
	1258	RFB	1			AD, LOW IN TROUGH, MOVING PARALLEL ō SHIP, 3/4 mi to PORT
						From 12 – 13⅓ the tug has been at least 2 mi away – ranging to 5 mi. @ 1330 it is 5 mi off S.B.
SF	1430	Shearw/Pet				Puffinus or Pterodroma – seen for only an instant,
						1430 tug now coming within 1-2 mile of YAG
						1445 " " 1500 yds. of S. Beam
	1520	BROWN Boob	1			STARBOARD Beam, AD
	1535	BFA	1	~		behind ship, now 2 together
	1555	BFA	1	~		" ", now 3 "
	1700	BFA	2	~		" ", now 5 "
	1836	RFB	1	~		imm.
	1855					Sunset



LT 2087

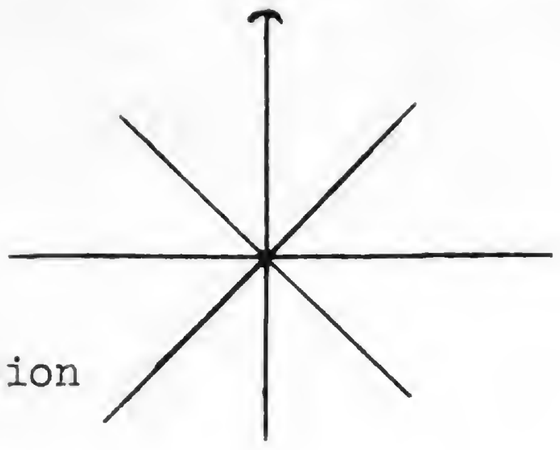
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:
Fitch

SPECIMEN or DIURNAL NON-GRID LT 2087

Date 26 Feb 1967
Pg.# 1

	TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
						Sunset – commence watch
	0715					Close watch for breakfast
	0730					open watch
	0838	WTTB	1	SW		
	0851	RFB	1	◎		adult
	0857	BFA	1	◎		adult following tug
	1101	RFB	1	◎		adult circling YA6-39
	1115					Close watch for lunch
	1215					open ~~wake~~ watch
	1227	G. Frigate	1	◎		observed feeding while flying just above H_2O
	1236	Bird sp.	1	◎		on horizon
	1254	RFB	1	◎		
FF	1302	Tern sp.	30± 5	◎		feeding flock, moved off to NE when disturbed by ship.
		Common Noddy	9	◎		
		RFB	4	◎		
	1336	G. Frigate	1	◎		circling high
	1434	Bird sp.	1	◎		on horizon
	1508	B.B.	1	◎		circling ship
	1510	BFA	2	◎		adults following ship.
	1550	Bird sp	1	◎		On horizon
	1640					close watch for dinner

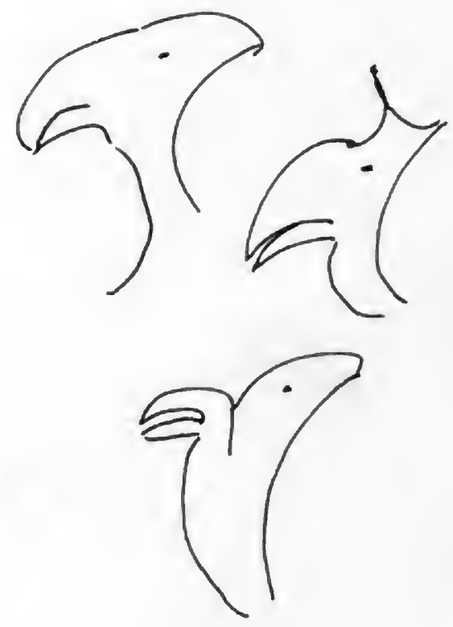


OBSERVERS:

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

Date 27 Feb '67
Pg.#

TIME	SPECIES	#	SPECIMEN or DIR.	BAND NO.	REMARKS
0705					Sunrise
0705	BFA	7			adults following ship
0711	BFA	4			2 adults, 2 immatures following ship
0712	Laysan Albatross	1			following ship
0735					Entered squall
0754					Out of squall
0805	Shear/ Pet.	1			
0821					Enter squall
0834					Out of squal
0837	BFA	2			adults following ship
0920					ENTER SQUALL
0926					LEAVE -
0930	LAYSAN ALBATROSS	1			FOLLOW SHIP, NOW TWO LA
0950	SOOTY TERN	4			AD flying by bow } NOT TOGETHER
0955	FAIRY TERN	1			~~AD~~ .. .. ..
1026	BFA	1			TOTAL COUNT OF 13 B.F.A. & 2 L.A.
1110	FAIRY TERN	1			
1155	Fairy Tern	2			flying by bow
1214	Fairy Tern	1			
1255	G. Frigate	1			
1325	Shear / Pet.	1			
1446	BF Booby	1			PARALLEL ⊽ SHIP, AD
1510	SOOTY TERN	2			PAIR, FLY PAST BOW TO THE NORTH
TF 1524	SOOTY TERN	9	→		FLYING NORTH IN FLOCK
	FAIRY TERN	1			
1603	G. FRIGATEBIRD	1	↗		FLYING NORTHWEST, AO ♂
1605	BFA				TOTAL OF 16 NEAR SHIP
1655	Sooty Tern	1			adult
1834	RFB	3			following ship - subadult
1845					Sunset - close watch
		48			



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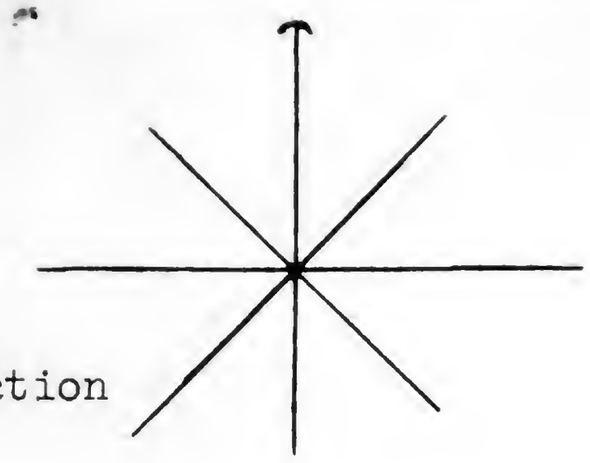


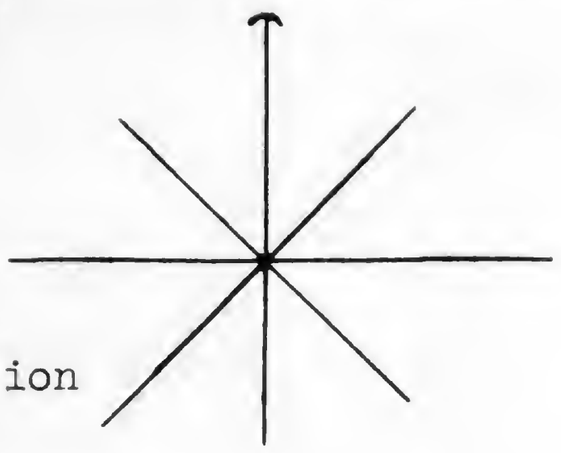
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

Schreiber

Date 28 Feb 67
Pg.# 1

	TIME	SPECIES	#	SPECIMEN or DIR.	BAND NO.	REMARKS
	0657	BFA	9			Following Ship
		LA	1			" "
	0750	Pomarine Jaeger	1			imm.
	0825	BFA	3			F.S. total of 12
	0850	P. J.	1			Ad
	1010	WRSP	1			
	1026	M-B Tern	2	N		
	1035	M-B Tern	1	N		
FF	1041	Sooty Tern	120 ±10	SE		
		MB Tern	15 ± 3	"		
		REB	3	"		
		Fairy tern	4	"		
TF	1055	Sooty Tern	443	E		
	1108	WTTB	1	SSE		Following Ship
	1130	WRSP	1			
	1132	RAB	1	E		SAd.
TF	1140	ST	6	E		
	1200	BFA	3			F.S. total of 15
	1205	ST	3	SSE		
	1210	P Jaeger	1	E		A.D.
	1243	" "	1			
	1243	BFA	2			FS - total of 17
	1312	P. Jaeger	1	WSW		Ad.
	1330	"	1	SSE		Sad
	1350	"	1	SE		Ad; dk phase
	~~1415~~	~~P. Jaeg.~~				
	1515	Sooty Tern	2	W		
	1535	RFB	1			Ad



Ship
Direction

OBSERVERS:

Schreiber

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

Date 28 Feb '67
Pg.# 2

TIME	SPECIES	#	SPECIMEN or DIR.	BAND NO.	REMARKS
1537	RFB	2			Ad
1550	RTTB	1	E		
1551	RFB	1	E		Ad
1551	LTTB	1	E		Ad
1552	RFB	1	E		Ad
1552	S.T.	3	E		
1556	RFB	1	E		SAd
1605	RFB	1	~~BB~~		Sad.
1615	P. Jaeger	1			Ad.
~~1615~~	~~BFA~~				
1617	P. Jaeger	2			Ad.
1621	RFB	1			Ad
~~1650~~	RFB	1			Ad
1705	RFB	1			Ad.
~~1705~~	~~A~~				
1735	RFB	1	E		Ad
1740					close of morning Patrol.